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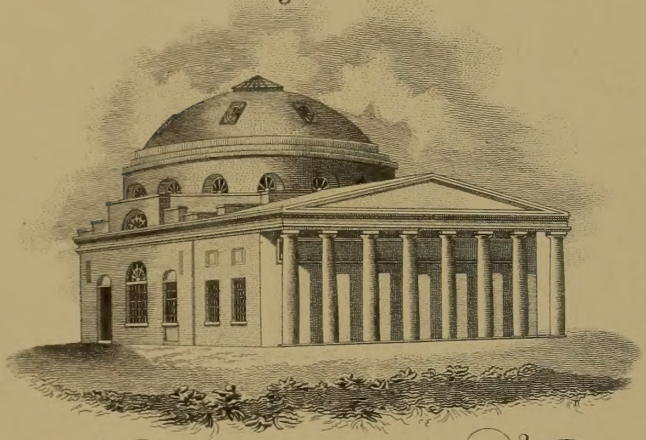

University of Maryland

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The project team who [illegible] and [illegible] the [illegible] were: Richard J. Bohles, [illegible] Cynthia Adams, Milagros Pichay, Mirandas Mercado, [illegible] and Carol Hulling Henry, Resources Division; [illegible] and the Web, Services Division.

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University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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(CORRECTED TABLE OF CONTENTS)

UNIVERSITY OF MARYLAND

THESES

1876 (b)

Author	**Title**
Galloway, Thomas K.	Arthritis
Umpierres, Artemio A.	Hernia
Porter, Robert J.	Pseudo-Membranous Laryngitis
Cline, Henry C.	Intermittent Fever
Herman, Henry S.	Scarlatina
Jaruis, William C.	Typhoid Fever
Fry, Henry D.	Typhoid Fever
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Lemmon, Richard H.	Physiology of Nutrition
Chayer, A. H.	Encephaloid Cancer
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Whitehill, Maximus	Variola
Tall, L. L. W.	Irritation
Pole, Arminius C.	Physiology of Human Digestion
Revell, Henry M.	Fractures

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1876 (b)

Galloway, T. K. (Thomas)	Arthritis	23p.
Umpierres, A. (Artemio, A.)	Hernia	30p.
Porter, R. J. (Robert)	Pseudo-Membranous Laryngitis	31p.
Cline, N. C. (Henry)	Intermittent Fever	24p.
Herman, H. S. (Henry)	Scarlatina	52p.
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Fry, H. D. (Henry)	Typhoid Fever (partially finished) (torn pages)	38p.
Anderson, B. E. (Barton)	Lobar Pneumonitis of Childhood	41p.
Lemmon, R. H. (Richard)	Physiology of Nutrition (stained)	22p.
Chayer, A. H.	Encephaloid Cancer (not in cordell)	25p.
Yount, J. H.	Yellow Fever	26p.
Whitehill, M. (Augustus)	Variola	20p.
Tall, L.L. W.	Irritation (not in cordell)	27p.
Pole, A. C. (Hermanius)	Physiology of Human Digestion	32p.
Revell, N. M. (Henry)	Fractures	32p.

A Thesis

Arthritis.

J. H. Galloway

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LIBRARY

Arthritis

Gout is a disease which occurs generally in persons of vigorous constitutions, and at the age when the powers of life are greatest. It is a very painful affection; preceded usually by flatulency and indigestion, and accompanied by fever, pains in the joints of hands and feet, particularly in the joint of great toe, and which returns by paroxysms, occuring chiefly in the spring and beginning of winter.

Pathology. In gout we have a morbid increase of uric acid in the blood, and a decrease in the urine. There is allso a deposit of chalky

matter (Tophus) to be found around the joints, principally on the bones and ligaments.
The uric acid is found not only to exist in the blood serum, but will be found also in the fluid effused by blisters, and in the pericardial, and abdominal fluids. When gout becomes fully developed, and inflammation takes place, it is similar to rheumatism, with the exception of the deposit of urate of soda, attacking bones, cartilages, synovial membranes, ligaments, bursae, muscles, tendons, and aponeuroses.

The urate of soda is deposited first in a white fluid state, like chalk and water, eventually this fluid portion becomes absorbed, leaving a hard deposit consisting of bundles of crystals of urate of soda. These concretions are often very superficial, so much so, that patients have been known to write their names upon the table with their finger. The patient is troubled with wandering and twitching pains. The pain is due to congestion. Concretions very often occur in the lobes and cartilages of the ear.

The teeth are sometimes affected the patient having a great desire to grind them. Intense heat of the nose, lasting for three or four hours, the part having first a bright and then a purplish red colour, extending over the upper portion of the cheek. The sciatic nerve is frequently affected, which in the course of time may extend to the spinal marrow, causing structural degeneration.

Gout is considered to be hereditary and in many cases it is so, whether the intemperate habits of ancestors are followed out, or whether the person is very

carefull in his mode of living. It generally affects persons in high life, but is also found among the poor as well as the rich, affecting those principally who are indiscriminate in their diet, and who habitually indulge in malt or any liquors that contain a great quantity of alcohol. This disease very rarely occurs before puberty but it has been seen in both sexes under twenty, the average however is between thirty and fifty. If a person once has gout, that attack establishes a greater predisposition

to another. The causes of gout are similar to those of rheumatism. In addition to the acute form we have chronic, and gouty synovitis. Chronic gout is a persistent constitutional affection characterized by stiffness, and swelling of the joints, with deposit of lithate of soda.

Symtoms. Gout comes on very suddenly, with the exception of slight indigestion, heaviness and flatulence, which occurs generally a week before the fit. The pain is usually felt first in the great toe, it may sometimes begin in the heel

ankle joint, or calf of the leg, in aggravated cases both feet, the hands, wrists, elbows, knees, and other parts, may be affected at the same time. Sometimes bending the fingers so much, that it is impossible to use them.
In cases of this kind chalky formations are observed, resembling crabs eye, which may be picked out with a needle. In the first part of the attack, the urine is high coloured. The fit is attended throughout with loss of appetite and chilliness

of the body, towards evening.
During the paroxysm, the
urine does not contain
the usual amount of uric
acid, but it exists in larger
quantities in the blood.
Phosphoric acid is also diminished
in as many cases as uric.
Albumen is found in small
quantities in the urine, but
its occurrence is only temporary.
If found in large portions
you may suspect chronic
disease of the kidneys, which
may be produced by gout.
While the fit is leaving a
violent itching siezes the foot,

especially between the toes, frequently the skin peels off. When the disease has become chronic, sometimes while the patient is asleep, he feels a sudden blow as if the tarsus were breaking in pieces, so that he wakes up crying with pain. The tendons of the muscles of the tibia are sometimes rieged with violent pains or cramps. Afterwards, instead of the usual external pains, he feels a certain sickness or pain in the stomach, followed by diarrhoea.

When the joints enlarge and the tissues and ligaments become thickened, and the patient suffers from loss of appetite, indigestion, sickness nausea, flatulence, pains in the stomach, cramps in legs, also low spirited, vertigo, palpitation, fainting, asthma, from stone or gravel; this is termed atonic gout.
Retrocedent gout, is applied to cases of gout, in which some internal organ becomes affected on the disappearance of the disease from the joints, and should be referred to acute

or chronic. When the stomach is affected it may be either spasmodic or inflammatory. Spasmodic occurs more fre-quently, its symtoms are, violent pains in the stomach, faintness, coldness of the extremities, and very feeble pulse. Metastasis may take place to other parts beside the stomach, viz, head, bladder, or testicles. During the metastasis sharp shooting pains are felt, compared to stabbing with a knife There is great change in the function of digestion

also the hepatic and urinary secretion, in all cases of gouty paroxysms. The urine when scanty and of a deep red color, is very painfull and scalding, during micturition. Gouty patients are prone to the formation of renal calculi, and to paroxysms of pain caused by the passage of stones along the ureters. When the paroxysm is over, the patient health becomes very much improved. This state may last for a year without him being conscious of any symtoms, which would

indicate the return of his old trouble. After a time his former feelings return, and at lenght a fit takes place, similar to the fareceding. The last one however, is somewhat shorter and less violent than the first. Gradually the interval between the attack becomes shorter, and in some cases so short, that the patient can hardly be said to be free from gout the whole year round. Gout tends to acquire a chronic character, rarely quiting the person affected untill it has left him a

helpless cripple, the rest of his life.

Diagnosis. The diagnosis between gout and rheumatism is at times very difficult, so much so, that nosologists have described an affection, ("Rheumatic Gout") Gout and rheumatism are different not only in the symtoms, but in class of patients that are affected, and by it being hereditary. Gout very seldom attacks children under puberty Rheumatism occasionally does. Gout is more frequently found among the wealthy

the luxurious, and the frequently idle, and is very seldom heard of among those subjected to labour, hardships, and exposure. Rheumatism is the reverse. Uric acid is found to be morbidly increased in the blood in gout, while in rheumatism it only ~~increased~~ found to a slight extent. In gout there is greater functional disturbance before the attack, the disposition of the disease to fix itself on the small joints, its paroxysmal attacks, and disposition to recur at regular intervals

the brighter redness of the inflamed part, the more violent pain, its greater tumifaction, and more decided tendency to oedema, and finally the desquamation that follows when the swelling has subsided

Prognosis. Gout is not a very dangerous affection itself, but in the course of time it may lead to other afflictions, such as asthma disease of the heart, apoplexy &c which would be very dangerous to the patient.

Treatment. Local treatment is very seldom resorted to. Poultices have been applied to the inflamed part, but in most instances, the discharge has been so debilitating that patients are said to have sunk under this mode of treatment. More advantage can be derived by waiting untill the deposit becomes concrete, and then operate by making a small incision for its removal. Cold water applications are considered to be very dangerous. Dr Parry, mentions a case in which a patient

thought to gain relief by plunging his feet in cold water. The relief was instant, but in a few hours he was dead of apoplexy.
Leeches have been applied, but in general, they do more harm than good. The application of warm anodyne lotions have been tried, and in some instances great benefit has been derived. Blisters are beneficial in chronic cases, when the inflammation has a tendency to linger around the affected joint, and to cause liquid effusion.

When the pain is exceedingly great, much relief can be obtained by the application of a solution of the sulphate of atropia grs iij or iiij in a weak mixture of spirits and water, this should be applied by means of a compress, covering this with oiled silk, to prevent evaporation. General bloodletting is resorted to in some cases it produces a sedative action on the heart, and on the system in general, thereby exerting a powerfull influence on gout inflammation,

not merely influencing the removal of gout from a joint, but acting also on gouty bronchitis, headache, and a form of ophthalmia which sometimes affects gouty patients. Neutral salts are highly recommended. The theory on which they are prescribed is, that the alkaline base of the salts is absorbed, and combines with the insoluble urates deposited in the joints, forming a soluble urate, which can readily be absorbed. The salts most frequently used are the sulphates of soda or magnesia; half a drachm to a drachm should be given every night.

or ten hours; combined with a small quantity of some preperation for the relief of pain. Colchicum was at one time thought to be a specific in gout, it is still used with decided benefit, and may be given in the form of tincture extract or wine.

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The iodide and bromide of potassium is considered by some to be very useful. Great benefit can be derived from the continuous use of iodine in small doses, two or three times a day in a very dilute form and although it may not entirely disappear if the intestinal canal be inflamed leeches should be applied to the epigastrium, followed by a poultice. The diet should especially be attended to. It is quite to be avoided the use of it if used for a time and then stopped the affection is very liable to return.

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If alcohol is needed it may
be given in the [illegible]
[illegible] so [illegible] that it [illegible]
soda water, sweet wines should
be avoided. The patient should
retire early, keep the mind
quiet, clothe warmly, and
exercise as much as possible.

Thesis
by
A. Ampieres
1876

Is it possible to ascertain the moment in which Celotomy is indispensable in external strangulated hernia?

The course which we propose to follow in the resolution of this proposition is as follows:-

To define a hernia; to give examples of the different kinds of hernia; what must we understand by strangulated hernia: symptoms and treatment of the strangulation: strangulated hernias that require, by all means, the active intervention of the Surgeon, without any loss of time.

Definition of hernia:- the name of hernia is given to all tumors formed by the setting out of the different viscera, or of any viscera from its natural cavity through some aperture normal or otherwise.

He could give a more concise definition of abdominal hernias by saying;- they are all the tumors formed by the protrusion of one or more viscera or of a portion of the viscera out of the abdomen.

Different kinds of hernia:- the first division that is made in hernia is traumatic her-

nia, or the hernia which arises from fresh wounds: secondly those which are spontaneously developed in consequence of an exertion.

Hernias receive different names according to the aperture through which they project. Encephalocele is the hernia of the cerebrum, gastrocele is the hernia of the stomach, Epiplocele is the hernia of the omentum; the hernia of the intestines is called enterocele that of the uterus is called hysterocele, while cystocele is the hernia of the bladder.

also mention omphalocele or Naval hernia, bubonocele or inguinal hernia that which takes place through the inguinal conduit and hernia cruralis or the hernia which protrudes through the crural ring.

What must be understood by a strangulated hernia?

Prof Gosselin says there is nothing more difficult than to give a definition to which all surgeons may agree. His same author in his thesis for Aggregation of 1844 gives the following definition: "It is

said there is strangulation in a hernia when all the viscera experience a constriction that renders difficult the circulation of the blood, and the intestinal matters, and which opposes resistence to the entrance of those viscera into the sound"

The partisans of the hernial peritonitis, or of the false strangulation say that, that definition is not satisfactory, since when it is said that "the constriction opposes resistance," it is not known whether this opposition at the entrance of the organs of the abdominal cavity is temporal or indefinite.

These very ones affirm that the essential character of the strangulation is the impossibility of its reduction in whatever epoch and by whatever means that may be used in its unavoidable determination by which gangrene supervenes, if the surgeon does not interfere, Gosselin seems to accept this reflection when he adds the following lines:- "constriction whose unavoidable if it does persist must be the gangrene of the intestines when the reduction is not made"
In another definition given by the same author under

Atlas

a therapeutic point of view says; - "constriction whose sad effects are avoided by an immediate reduction when the Surgeon is called in time." So that he admits according to this definition and so seems to indicate the term <u>immediate</u> which he makes use of in it, that all strangulated hernias can be reduced without operation and by some other means and above all by manipulation: in this we do not agree since there are hernias such as we will indicate hereafter which are not reduced although they may be produced in the presence of the Surgeon,

It cannot be doubted that when the manipulation is not done with prudence and regularity the effects of pressure may give rise to transcendental consequences, for then far from obtaining a reduction we would contribute to cause a contusion in the organs which cannot be done with impunity.

Massonneuve has understood so well the dangerous consequences of manipulation done in a vicious manner that for the brusque action of the hand he substitutes another more regular and above all more powerful agent such as the tenchue under the form of a band. We seem to con-

— -

ominent to say, that these cases of success have been constantly referred to voluminous inguinal hernias.

Symptoms and treatment of the Strangulation. The distension of the hernial bag by gases which without having been affected by the compression do not come out on account of the obstacle that the constricting ring offers

Let us not forget that the phenomenon of distension does not always indicate liquid in the bag It cannot always be said whether the fluctuation in the bag depends upon gases or fluids. The sound is perceived when the hernia

voluminous, this phenomena seldom occurs when the hernia is small. At first the skin and cellular texture of the tumor do not present any modification; but after a few hours the skin grows reddish a phlegmasia takes place, and the cellular tissue becomes oedematous. The tumor remains of the same size for some hours after the strangulation but on account of a more or less considerable amount of liquid that is produced in the bag, the tumor increases somewhat in volume. The signs which are referred to the abdomen are

abdominal pains, true colic, which radiate throughout the whole abdomen, whose starting point is in the place of the constriction of the sac. These pains are spontaneous and beside increase on account of the pressure and the movements of the patient.
Moreover nausean with vomiting is observed from the beginning of the strangulation, in some cases it continues in abundance but in others it diminishes.
The vomited matter first consists of nutritious substances afterwards of mucus and bilious substances and lastly of fæces

stercoraceous matter. The patient represents this matter as having an offensive smell and taste. The patients have sour eructations, and after the second day have hiccough. The patients loose all appetite and refuse to take any food. As in the strangulated hernia there is an obstacle to the course of the fecal matter, it is evident that the want of expulsion of gasses and of those matters will be a constant phenomenon.

Patients sometimes defecate either naturally or by means of an injection; in this case it is necessary to suppose the existence of these matters after the constriction

The abdomen is voluminous, sonorous to percussion and meteorism more or less notable. In some cases so great in the intestinal obstruction as to cause the diaphragm to be compressed, and then the breathing is short frequent and difficult. The other functions of the organism sometimes operate normally at the beginning, and more particularly, as Gosselin says, in the crural hernia. In the other hernias from the beginning is noticed slight febrile movement, increase of heat in the skin and a general indisposition. The pulse is afterward observed to become more rapid, filiform and intermittent

the features are disfigured, the face contracts, the heat of the skin decreases, and is covered with a cold and clammy perspiration. In some cases the patient presents a cyanotic color, and at the same time coldness, slowness of the pulse, cramps, and suspension of the urine. These symptoms increase and the patient dies from ~~the~~ prostration, and rupture of the strangulated intestine causing an overflow of fecal matter into the peritoneal cavity, and resolving itself in a few minutes into acute peritonitis which ends with the patients life.

In some rare cases where the intestine has remained outside and

emptied itself, if the economy have strength to resist the effects of the gangrene, the patient is cured in virtue of the preternatural anus formed. This description corresponds to the enterocele and to the enteroepiplocele. When the case is of a strangulated epiplocele the described phenomena are not so remarkable; and the evacuations are not suspended, for they take place when a purgative is given or by an injection. Malgaine, Brica, Richert, and Escarpa describe acute strangulation in the following way:- pain in the tumor which is increased considerably with pressure, colic, frequent vomiting

eructation, hiccough, inflammation of the abdomen, congested face and notable febrile movement. The first two authors place these cases under the head of true strangulations (a) they believe the knife the only remedy. The treatment of strangulation offers a thousand difficulties, that cannot always be overcome. We have choice of two methods either medical or surgical. Diverse and innumerable have been the means put into practice the treatment by medicine. This very richness in the medical way proves its inefficiency, and whilst trying our remedies we are loosing precious time.

This work, as it is known, would be of not a great labor, but to accomplish it, it would suffice to mention here, what the classic authors have said on this point.

The assistance of the surgeon ought to be of great importance, there will be cases in which we will be obliged to make the taxis immediately, either as a touchstone, or as a curative means. There are other cases in which the incision is applied as an urgent and necessary operation. I will touch upon these matters more at length in the conclusion of my theme. Let us say a few words about the "Taxis" and incision.

The taxis consists of the systematic pressure that we apply with our hands or other object on the ruptured tumor as means to reduce it. All authors do not apply the same treatment to this method.

The moderate and progressive taxis is recommended by Francis, Garengeot, Sharp, A. Cooper, Dupuytren &c etc. The forced taxis has been recommended by Desfranc, Amussat, Gosselin is an exclusive partisan of the lengthened taxis, and simultaneously uses Chloroform up to the complete reduction. Maisonneuve proclaims the taxis by compressure by taking advantage of bandages three fingers wide, and ten yards long.

The accidents to which taxis is subject are various, the increased inflammation of the hernia, the rupture of the intestines, the reduction of the hernia with the bag and therefore the internal strangulation. The taxis should be tried in the voluminous & and medium hernias; not so with those small ones that have the form of a chestnut, since experience has taught us, that the latter, in the majority of cases, cannot be reduced by similar operations. In this last case herniotomy has to be done without loss of time, but if circumstances permit it would be best first to try taxis.

The taxis cannot always be applied to the voluminous hernia.
Several conditions are to be taken into account: that the hernia may be recent, that the compressure of it may not give heartfelt trains, and that there may not be any phenomenon which may show gangrene of the intestines, or a peritonitis somewhat prolonged. Can it possibly be said what are the cases which imperiously demand the active assistance of the surgeon without a loss of time? It is easily understood this question is of a delicate nature, and it is especially true the precipitation and want of ethic of some surgeons have been the

cause of the terrible consequences of a protracted taxis.

Shall we follow in their footsteps, which experience teaches us leads to the sad reality of unhappy issues? Certainly not!!! There remains no doubt, but that the first means that we shall have recourse to, in a general point of view, is taxis. When the hernia is primitive, small and the strangulation painful, when the pains are considerable, and the vomiting frequent, then it behooves us, by no means, to loose time. Experience has taught us that taxis should be avoided, but that we should have immediate recourse to herotomy. The most eminent

Surgeons agree on this point viz. Malgaine, Brica, Francis, Pott Decault and Nelaton.

Malgaine and Broca speaking of the symptoms we have described say, that there are no means by which this strangulation can be overcome but by the incision-knife,. In the small hernias of which we have already spoken they are found generally formed through the intestine, although it cannot be denied, that in some cases a portion of the epiplon, though small it may be, is ruptured.

Experience has taught us that in small hernias, the phlegmatic phenomena, the gangrene, and perforation disappear

with wonderful rapidity; in this kind of hernia the strangulation is true, and nothing can be gained by taxis. The irregular pressure that is made against the intestines provoke the inflammation, though there is no sufficient epiplon that can protect it. Gosselin a partisan of taxis in every case, expresses himself thus:- "Since the "probability of a similar case is of "a true strangulation we should not "lose time, and the incision is "immediately necessary!" he also "says:- When the hernia is small it "is necessary to believe in a prema-"ture perforation, and to admit its "existence 36 hours after it has been "presented!"

Let us suppose for an instant a small hernia that has been strangulated, it gives an intense pain in the whole pedical of the tumor, the bowels become somewhat swollen, and tympanic, fever rises, and the vomiting continues, the costiveness is pertinacious, the opening of the hernia becomes red, a sensation of more or less softness is experienced in the cellular tissue of the underskin. What has to be done in this case? Every surgeon without exception, even those who so greatly favor taxis, are of the opinion that the operation of Celotomy should be done, and that without delay.

Since as Gosselin wisely remarks, the last two signs indicate an intestinal perforation, and a flow of stercoraceous matter into the bag. If besides, what we have said, other phenomena should appear in the tumor, who would dare put in practice the taxis, who when using this means, would wish bear the title of a criminal? There then is the appointed time when the surgeon with his knife in hand ought to be of service, that is to say when the strangulated hernia is small, and when some of the phenomena of which we have already spoken are presented. We should bear in mind that

although very few cases of small and strangulated hernias have been cured by Taxis without any consequence, however, if the hernia has been examined, and no signs of perforation or gangrene are apparent, there is no reason why we should not use moderate taxis for ten minutes, if nothing is gained we should irrigate the tumor with ether. If after two hours time, having made the Taxis, the local phenomena continue in the same way, that is to say, if none of the signs that contraindicate taxis appear, we should make other Taxis, and if the second application is not sufficient, we should have recourse

to celebrity even if those phenomena of which we have spoken, and which contra indicate the taxis have not appeared. Thus the question concerning small and strangulated hernias is explained. Let us now go on to those that have a medium and thick volume. Experience has taught us, that in these the phenomena of inflammation perforation and gangrene are not so quickly met with as with the small ones of Petit. In this case the progressive taxis should be employed at the beginning provided there be no phenomena that contra indicate it, as per-

foration, gangrene etc. Besides in these cases the intestines are protected by the epiplon, and the consequence is not so fatal as in the small ones. Gosselin says that generally in the medium and thick hernias the perforation is not presented until the third or fourth day. Let us suppose a hernia of medium size in which no sign of perforation or gangrene has presented itself. What should we then do? Try the taxis for the space of ten minutes, then irrigations with ether, if no good results and the symptoms do not abate, we should again try taxis for fifteen minutes at most having etherized the patient,

if no good result have followed this our second application of taxis we should again irrigate the part freely with ether and make taxis for the third time. There is no objection to using purgatives and injections, as well as every other means that is recommended by the science. If afterward the skin becomes red, oedematous and crepitating, and if the symptoms of the third period unroll themselves, then we have to dispense with the means aforesaid and proceed immediately to Celotomy

Here then is fixed the time for the operation of Herniotomy,

when the hernia is small
thick and has been strangulated.

A. Umpierres
Balto Infirmary
Febry 14 1876

A Thesis

Presented in partial fulfillment

R. J. Perkins

Class, 1896.

Pseudo membranous croup.

Pseudo membranous croup, or croup, is an acute inflammation of the mucous membrane of the larynx characterized by a serious exudation. It is confined almost exclusively to the period of childhood, and occurring in adultis. It is seldom met with in the aged. [illegible] the cause of [illegible] disease. In common with other [illegible] it could not be [illegible] of [illegible]. The specific cause [illegible], nor

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[illegible]

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A Thesis
Intermittent Fever
by
H. C. Cline
1876

Intermittent is one of the periodical fevers, with characteristic paroxysms, occurring in regular succession. Between a fit, there is an absence of febrile movement. This fever is popularly known as the fever and ague, chill fever and by a variety of other names, expressive of the particular section in which it was produced. The history will include, first of the paroxysms, secondly of the intermission and thirdly of the different causes by which the disease is generated in the system.

In the greater number of cases, the attack comes on very suddenly. Though at times, there may be premonitions which are not characteristic, yet sufficient to lead any one to a correct anticipation of a coming attack. The complete paroxysms consist of three separate stages, the cold, the hot, and the sweating stage. The cold stage comes on by a sensation of coldness in the extremities, which gradually spreads over the whole body, accompanied by a shivering

or trembling, and intense shudder which, rapidly pass through the system. The teeth chatter, muscular rigors set in, bristling of hairs over the body, while the tissue of the skin, shrinks from the capillary follicles, presenting the so often observed and familiar gooseskin appearance. By a closer examination, a decided decrease of temperature, below that of health, will be observed in the extremities, and by an application of the thermometer in other parts, a decided increase may be observed.

The pulse becomes feebly accelerated, with excessive thirst, loss of appetite, head-ache, low spirits, no perspiration but the amount of urine is increased, with low specific gravity and nearly colorless. The chill generally lasts from ten minutes to an hour. The internal organs become very much congested, for as there is no diminution in the amount of blood, it is by an influence of the vaso motor system of nerves, causing a contraction of the peripheral vessels and thereby forcing the blood from the surface of the

body and accumulating it in the internal organs. The transition from the cold to the hot stage, is not at all sudden, the succeeding warmth, very comparatively agreeable. The skin becomes gradually hot, pulse frequent and strong; the face becomes flushed, with a universal burning heat, and a diffused redness over the whole surface, and a distension of the skin with blood. At this time a rapid increase of the temperature is induced by the thermometer

rising to sometimes as high as, one hundred and six, point degrees. There is in this stage a imminent syncope, the mouth is dry, the tongue is furred, with violent head-ache, nausea, and vomiting, the bowels constipated, a diminution of the secretions, my skin, with scanty and high colored urine. The influence of bad water system being withdrawn in this stage, causing a dilatation of the vessels and allowing a full supply of blood to the surface. which may also cause

to an increased need of the tissues for blood. The next is the sweating stage, which comes on gradually, and some suppose, defends upon the hot stage; the stronger action of the heart, filling the superficial capillaries with blood, and thereby restoring the natural secretions. The sweating stage coming on gradually, the main time first appearing on the face, then, upon the extremities. There is a feeling of comfort over the whole body, the head ache is lessened, the distortions

of the stomach ceases. There is a total disappearance of all febrile symptoms, followed by a slow, soft, full pulse, and skin, the secretory organs resuming their natural functions. The time between the paroxysms is called the intermission, while the interval is the period from the beginning of one to the beginning of the next paroxysm. The interval is considered the source, from which the different types are derived. Each type is governed by certain peculiarities, length

out its whole course without any variation. The division may then be into three simple types, the quotidian, the tertian, and the quartan. In the quotidian type the paroxysms occur daily, or the interval lasting twenty four hours; in the tertian the paroxysms occur every other day or having an interval of forty eight hours, and in the quartan type the paroxysms occur every third day or giving an interval of seventy two hours. There may be

other types of the disease such as those, which occur on the fifth, sixth, seventh, and eighth days, giving the quintan, sextan, septan, and octan types. Other types have also been noted, as the double quotidian, tertian and quartan, which are extremely rare. The most frequent is the quotidian. In the same locality one type may dominate one season, and another type, the next season, it being governed entirely by the influence surrounding

that locality. Paroxysms seldom occur at night and hence they may occur at any hour in the day. The quotidian and tertian types, generally occur before noon, but the quartan at any hour in the day. We may sometimes have a transformation of either one into other forms, as a quartan may change into a tertian, or a quotidian into either of the other forms. The disease can be said to be either retarding or advancing, as the paroxysms occur at earlier or later hours

in the day. They vary very much as regards duration, generally lasting longer in the quotidian than in the tertian type, and much longer in the tertian than in the quartan. If the disease is protracted or becomes chronic, the paroxysms are invariably shortened. It is assumed, that there is some influence exerted, for it is noticed; that as the advancing or receding paroxysms approach the night, they are suspended or cut short. If intermittents be left to themselves, they may

terminate spontaneously, but when the poison is once in the system, there will be an evident predisposition to a relapse, and will often be provoked, by very slight causes; and be very indefinite in the duration. If the disease be checked at once; nothing follows except a disposition to relapse. which may last to an indefinite time, and if allowed to run on, disagreeable consequences will be apt to follow. The complications and sequelæ

attending intermittent fever, may not be from the peculiar character of the poison, but from the state of the system whether it be low and debilitated, or strong, healthy, and vigorous. In chronic cases anaemia may take place of a marked character. The organs most likely to become affected are the spleen liver, kidneys, stomach, and bowels. The spleen will become enlarged to sometimes twice its original size, so as to render it easily felt through the abdominal walls which may exist for a long

time after the paroxysms have ceased. The liver will also become enlarged and diseased, resulting in diarrhœa, dyspepsia and jaundice. In long continued cases, the face becomes pale and sallow, a feeling of languor and weariness pervades the whole system, the countenance assumes a dejected and sad expression, and the face has more or less of the swelled appearance. The discharges from the bowels are scanty and in a proportionate number of cases, dropsy will occur, and

frequently, when by remedies, the disease is suddenly checked; which may be owing to a serous discharge, instead of the natural secretions, or to a watery condition of the blood. The liver and spleen being diseased another form of dropsy, very difficult to cure may occur. The cause of intermittent may involve a specific miasmatic poison, which may be, emanations from decaying matter; but some authors urge that it is not due to vegetable decomposition, as it has been

known to exist where there was no growth of vegetable matter; as an example, when it prevails in low, moist, muddy soils, as in the case of the English soldiers, who bivouacked in a ravine, which had been a river; and the next morning one-half were infected by the poison. The infection may sometimes prevail in high and dry sections, but it seems to have an affinity for low, and moist grounds, though there may not be any vegetation present. The temperature

at which it is developed is seldom lower, than sixty degrees, and the nearer we approach the equator, the more virulent it becomes. It has an affinity for dense foliage, and is often emanated by our turning the soil and can be transported to a distance of several miles. A body of water is said to have an absorbing effect upon the miasma as it has been known to prevail upon one side of a river, while the opposite side, enjoyed perfect immunity

from its influence. According to Prof Salisbury it may be due to an ague or cryptogamic plant as discovered by numerous microscopical examinations, from the salivary secretions and mucous expectorations; and upon further examination of the urine plants were found, identical with those existing in the soil of miasmatic districts. The diagnosis of intermittent is not difficult if you consider the malarial origin, the only diseases from which it is to be distinguished

as the hectic and remittent fevers. The hectic has the prolonged sweats at night, absence of head-ache. irregularity of paroxysms, while remittent fever is distinguished by the continuation of the fever during the interval. Prognosis is very favorable. the most danger being from secondary affections, such as dropsy and enlargement of spleen and liver. In the treatment of this disease, there are many remedies recommended, but the remedy upon which

the most reliance is to be placed, is the sulphate of quinia. It can justly be called a specific, and in the vast majority of cases, will exert a marked and beneficial influence upon the system. It should be the aim to arrest the paroxysm as quickly as possible and with this object in view, the quinia should be given in large and repeated doses. Among other remedies employed in the cure of this disease, we may mention arsenic which is given in the

form of Fowler's solution in doses of ten or twelve drops three times a day, Nitric acid is given in doses of five to eight drops. Hydrochlorate of ammonia may be given in drachm doses. Strychnia is also given. Lobelia will sometimes succeed. The internal use of Chloroform in drachm doses is highly recommended. If an opiate be given at the commencement of the cold stage it will moderate the severity of the symptoms, the warmth of the body should

be kept up by external applications, while stimulants should be given internally. In hot stage, great comfort can be obtained, by sponging the body with tepid water, and in the sweating stage by frequently wiping the body with flannel.

[illegible] acid bids fair to become an important remedy in treatment of this disease, and is highly recommended. But of all the known remedies, quinia is considered the best. It should be given in large and less frequent doses, twenty grains should be given during the period of twenty

four hours, in doses of five grains each, or until cinchonism is produced. How important is the fact, which Cinchona stands in the treatment of malaria," and when we consider the slowness of its introduction into medical practice, a sad comparison is made upon the perversity and blindness of human nature; which conspired to reject, and condemn, one of the most valuable discoveries recorded in the history of medical science.

An
Inaugural Dissertation
On
Scarlatina
Submitted to the Examination of the
Provost, Regents & Faculty of Physic
of the
University of Maryland
for the
Degree of Doctor of Medicine
by
H. J. Freeman

January 31st 1876.

[illegible]

[illegible]tion.—An injection [illegible]

[illegible] after a short period of incubation [illegible]

from 4–6 days. On the 2nd [illegible]

[illegible] And about [illegible]

[illegible] late. [illegible]

[illegible] of its frequency [illegible]

[illegible] isolated from the agi[illegible]

[illegible] and urinals, [illegible]

[illegible]. It can not be [illegible]

[illegible] called [illegible]

[illegible]

and constitutional disease, in which the cutaneous eruption may be looked upon as a most striking and characteristic feature. [illegible] are few things which [illegible] a wide range of [illegible] different causes, as [illegible] tone and volatility [illegible] few. [illegible] is a very trivial affection [illegible] in its source [illegible] to be more dreaded or more [illegible] in its nature [illegible] such kind of disease.

[illegible] is impossible to [illegible] regular or prescribed order according to [illegible] and complications [illegible] liable to [illegible] the disease. Hence we will first [illegible] what [illegible] consider a fair type of the disease without complications.

Varieties.

There are [illegible] three varieties. [illegible] simplex, Scarlatina anginosa and [illegible] these three varieties

[illegible]

by many [illegible], that [illegible]

described in [illegible] that [illegible]

books — yet there is a difference as

to this classification — and as

Scarlet fever without any [illegible]

symptoms, [illegible] does

not exist — the [illegible]

justifiable in making but

two varieties, [illegible]

there is no such a disease as

Scarlatina simplex without a

sore throat — [illegible]

variety can very properly

disregarded, the effects [illegible]

seem without any [illegible]

[illegible]

[illegible]

[illegible] with headache mostly [illegible] in the back and loins, [illegible] more or less a pronounced chill, [illegible] followed by fever. But the [illegible] syndromes, such as anorexia, chill and [illegible] [illegible] vomiting in scarlet fever, attacks frequently [illegible] at night. [illegible] out over the face [illegible] and back, [illegible] in [illegible] chill [illegible]

comes out. On the 2nd day
eruption generally appears —
usually first on the trunk and
and arms, then extends in
about 12 hours over the whole
body, covering the body
in two or three days
Sometimes this order is reversed.
Fever is sometimes [illegible] and
vomiting with or without
diarrhoea or there may be
constipation. The tongue is
[illegible]
difficult respiration, in the
[illegible] the temperature [illegible]

[illegible]

[illegible] the [illegible] day [illegible],

[illegible] hours becomes more [illegible], [illegible]

no other [illegible] of [illegible]

does the [illegible] [illegible]

[illegible], so that if this [illegible]

the tongue, it is one of the

most [illegible] symptoms of

this affection. [illegible] cerebral [illegible]

[illegible], in sight [illegible] [illegible]

or even in convulsions.

The [illegible] [illegible] [illegible]

and [illegible] [illegible] [illegible]

[illegible] [illegible], [illegible] [illegible] [illegible]

12 hours, the tongue [illegible] [illegible]

[illegible]
papilla of the tongue [illegible] a
liquid and [illegible] through the [illegible] that
peculiar color known and described
as the "strawberry" color, which [illegible]
it appears is [illegible] in
the affection.
In mild cases the eruption does
not spread over the whole body,
but [illegible] in many and
successive crops over the [illegible]
regions of the body. On many
time be different [illegible]
are also liable to become affected
the mouth, fauces [illegible]

along with the [illegible]
[illegible]
same appearance. The Schneiderian
membrane becomes affected and
often presents on their surface
[illegible] and sanious discharge. The
bowels and Mucous [illegible]
ulcerations and sloughs. The
different [illegible] [illegible]
are affected, [illegible]
by resolution. About the eruption
begins to decline about the
7th day, the [illegible]
the poison has [illegible]
exhausted its force, in a few
hours the [illegible]

the patient [illegible],
weak and in an [illegible]
condition. However mild this
variety of the disease may be,
the practitioner should be very
careful to remark any un-
favorable symptom that may
arise. Especially should the
urine be frequently examined,
as this disease is so very capricious
and subtle in its nature – daily urine
not be too often to insure the safety
and [illegible] care of the patient.
The points chiefly to be noted in
regard to examination of the urine
are as to quantity, specific gravity

[illegible] of [illegible]. But the principal danger is as to the suppression of urine more or less complete — which would give rise to very unfavorable symptoms — uræmia — with uræmic poisoning — convulsions or the reflexes of fever in the right side of the heart. Occasionally the disease does not run such a favorable course — fever at times with the symptoms [illegible]. The tumefaction, [illegible] posterior [illegible] lower lobes [illegible] [illegible]

The tonsils become [illegible] and inflamed, [illegible] at length [illegible] suppurate. There is very much more pain and difficulty in swallowing, so that fluids [illegible] the nose [illegible] are frequently returned through the nares. When this becomes [illegible], the temperature [illegible] rises to 104°–106° [illegible] to 107° (?). When the temperature rises to 105° there is much [illegible], and beyond this the [illegible] is [illegible] to cease. The skin is [illegible] with stinging sensations [illegible] itching which lasts till about

[illegible] 3rd stage. [illegible]
affection assumes this severe [illegible]
that [illegible]
of the teeth [illegible]
are [illegible] to [illegible]
or [illegible]
covering [illegible]
[illegible] of
a fungoid character are not
coherent nor of a [illegible]
position as in the true form
of [illegible]. This separation
when it disappears leaves the
tissues beneath of a [illegible]
ulcerated appearance. And all
the time this [illegible] of [illegible]

suppuration is approaching the fever
[illegible] increases [illegible]
and more severe. About the 6th day
the efflorescence begins to disappear
and with it the fever passes [illegible]
abates. But the [illegible]
and deglutition [illegible]
with fever for a week after. It
is these cases that the inflammation
extending from the pharynx [illegible]
very serious inflicts the [illegible]
secretions of the Eustachian
tube, causing [illegible]
the tympanum [illegible]
permanent deafness.

The tonsils and posterior glands

sometimes inflame and exulcerate.
It is to be remembered that various
complications [illegible],
are affections of other and more
distant [illegible]
as Vaginitis which is not of
frequent occurrence. And also
affections of [illegible]
as [illegible]
are [illegible]
should [illegible]
to [illegible]
great [illegible]
as well as [illegible]
to [illegible] or inflammation of
the affection.

[illegible]

[illegible] intense heat & [illegible].

[illegible] a [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible] [illegible]

with [illegible] [illegible] [illegible].

The scarlet rash soon [illegible]

its appearance, [illegible] [illegible]

Coma comes on [illegible] [illegible]

convulsions. At other times the child

retains [illegible] [illegible] [illegible]

morning comes it is suddenly

stiffed, [illegible] [illegible] [illegible].

The skin is hot in the [illegible] [illegible]

cold in another, sometimes [illegible]

with a roaring sound [illegible]

stages, [illegible] [illegible] [illegible]

in [illegible] 18 or
24 hours from [illegible]
[illegible]

In this form of the disease the
soreness of the throat may
become extreme, the tonsils and
tonsils [illegible] — the tongue
even becoming [illegible] enlarged
and oedematous, giving rise to
very urgent symptoms. The other
side, that and day, the temperature
rapidly rising and the horses
so [illegible] the [illegible]
to give rise to a low typhoid
condition, with wandering, de-
lirium, carphologia, [illegible]

[illegible] rapidly [illegible] malignant [illegible] from the beginning, as by its virulence to overbalance the system and produce its fatal consequences in a very few hours. It is, however, seldom that this [illegible] shows itself within [illegible] a short time, it generally proves fatal in from 3 to 4 days. The tonsils, palate and tonsils are covered with an adhesive, [illegible] exudation, the teeth become covered with sordes, the breath is fetid — the cervical glands

often serious effects — the inflammation and deposit sometimes ulceration and perforation occurs. This form of hospital fever is extremely fatal, but if it survives the 7th or 8th day, it is very likely to prove fatal. Recovery, however, sometimes occurs as to the exercise of some of its functions — such as respiration in desquamation or partial deafness.

Sequelae of Scarlatina.

There are many complications liable to arise during the progress of the disease in one or other

its variétés - some of which I have already mentioned. But in fact any affection which might arise in the course of this fever would complicate it to a greater or less degree, such as measles or pneumonia, which is not at all unusual; any of which would tend to make the disease still more grave. But it is to affections which occur during or after convalescence that attention is more particularly directed, commonly caused by fatigue or sequela.

Congestion.

Inflammation of the [illegible]

sometimes occurs as a sequel to scarlet fever, but often commences during the late stage of the affection and requires a most troublesome convalescence. At other times it arises during convalescence. At any rate it is liable to last for a long time, for many — the sometimes, averaging the patient by the escape of a thin, ichorous, fœtulent discharge, very intractable and indisposed to yield to any sort of treatment. This form of the trouble fortunately does not leave any permanent deterioration of the sense of hearing, although it

may be permanent deafness.

But there is another form of this trouble yet to be described, that is when the inflammation from the mouth or pharynx extends along the mucous membrane of the Eustachian tube to the middle ear and sets up a violent inflammation there, this inflammation is sometimes followed by the most serious results, such as perforation of the membrana tympani, with expulsion of the small bones of the ear, in which case permanent deafness will be the result. The ear complications of the inflammation

may not cause [illegible] from the
into the inner and lower portion
of the cranium, by extending along
the petrous portion of the temporal
bone, and affect the petrous and
lateral sinuses — cause obstruction
to the circulation, [illegible] rupture
of the veins, [illegible] thrombi.
But fortunately the melancholy
termination of this form of otitis
is not frequent.
Whilst Otitis & Otorrhoea
and consequences is one [illegible]
of this disease, as we [illegible]
and it — there is another
[illegible] occurrence and [illegible]

more importance, on account of its [illegible]

now proceed to speak of

"Albuminuria."

In regard to the time of the occurrence of this affection [illegible] liable to [illegible]. But it is generally connected with desquamative nephritis, and comes on in from 10 to 20 days after the [illegible]. After the [illegible] [illegible] [illegible]

[illegible]

[illegible]

danger. It is a fact [illegible]

that [illegible]

[illegible]

fact [illegible]

[illegible]

being considered convalescent, in act

[illegible]

[illegible]

[illegible] to expose to cold air

[illegible]

[illegible] time the casting off [illegible]

[illegible]

[illegible]

in fact often the [illegible]

[illegible] from the hands
[illegible]
[illegible]
[illegible]
and doubtless treatment
[illegible]
[illegible] of abscess, by [illegible]
[illegible] of the [illegible]
[illegible]
[illegible]
and the burden thus imposed
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]

[illegible]

[illegible]

[illegible] or never runs into chronic

Bright's disease. It is held

that although it [illegible]

[illegible] in mild than severe

cases, the tendency [illegible]

is intrinsic — and does not depend

on some toxic, alone or hydrogenic —

[illegible] agement of mild or severe cases.

[illegible]

[illegible] lesions found after death and

[illegible]

[illegible] manner. Sometimes no exudation

can be seen after death.

[illegible] found in a somewhat congested condition. And a curious fact noticed is that when there are violent cerebral symptoms before death, after death there is no inflammation found there.

Diagnosis.

Much can be said [illegible] under the head of symptoms which will [illegible] but as there are other diseases equally [illegible] to be mistaken for this affection, it may be well to dwell on some points to [illegible] the diagnosis.

[illegible] or [illegible]
[illegible] or [illegible] pneumonia,
scarlet fever or Meningitis. Again
scarlet fever is [illegible] not
in by [illegible] but in the
form of [illegible] cases and not
[illegible] spreading dis-
ease. [illegible] cases of
Meningitis are heralded in by
vomiting, [illegible] and high fever
[illegible] convulsions and other
[illegible] and it is only
by looking at the [illegible] that
distinguish it from scarlet fever.
In the first stage of both
scarlet fever the tongue is [illegible]

[illegible]

and [illegible]

like strawberry. Scarlatinoid.

[illegible] is sometimes [illegible]

distinguish it from measles or

even small pox. Where there

is a [illegible] heat [illegible] (103°)

and very rapid pulse, we should

suspect scarlet fever. The [illegible]

in [illegible] last [illegible]

[illegible]. [illegible] [illegible]

[illegible] days. [illegible]

and pulse very [illegible].

[illegible]

[illegible] the [illegible]

in [illegible] the [illegible]

[illegible]

[illegible] in cattle.

In Horses — [illegible] is [illegible]

in form and lasts about 5 days.

In L — There is [illegible] redness of the [illegible]

In M. There is rarely any sore throat.

In L — [illegible]

In M. [illegible]

In L — [illegible] and [illegible].

In M. General symptoms are not

prominent in [illegible].

In L. Bronchitis and pneumonia

[illegible] occur.

In M — Bronchitis & pneumonia often occur

In scarlatina – the sequelae [illegible]

[illegible]

" measles – the most [illegible]

" chronic bronchitis.

Koplik's [illegible]

taken for [illegible]

[illegible]

In measles the incubation is from 10-14 days.

" varola " " " about 12 "

" scarlatina " " " [illegible] "

The eruption appears in measles [illegible] day

" " " " varola " " " 2nd "

" " " " scarlatina " " " 2nd

In measles the [illegible] day. [illegible] fade

on the [illegible] day. [illegible] varola scabs

begin to appear on 8th or 10th day

[illegible] diagnosis is frequently assisted
[illegible]
[illegible]
[illegible] ing the neighbourhood
[illegible]
[illegible] to its [illegible]
again, in [illegible] Belladonna
has been taken it frequently gives
[illegible] to [illegible] "to that
[illegible]
increasing to [illegible] that the [illegible]
taking this drug, and to discontinue
the medicine [illegible]
[illegible] Erythema [illegible]
[illegible]

Prognosis.

[illegible] is no disease [illegible] more [illegible] than scarlatina, [illegible] in this respect [illegible] in cases where the [illegible] not fatal, runs an even course and is not complicated [illegible] or [illegible] affection the prognosis is quite favorable. But when the adynamic symptoms are severe it must be very guarded. Even when there is strength of the patient, [illegible] to [illegible] sit [illegible] grave, and in some [illegible] this disease where it assumes malignancy [illegible] an early period,

[illegible]
death is [illegible]
C. J. [illegible] [illegible]
has [illegible] [illegible]
[illegible]
work "cum grano" upon the
[illegible]
[illegible]
[illegible] to contend with an epidemic
in a [illegible] [illegible]
[illegible]. [illegible] of the
[illegible]
influencing our prognosis, but
more depends upon the intrinsic
[illegible] of the [illegible].
Convulsions are always dangerous

[illegible]

on the 1st 2nd 3rd or 5th day.

During the desquamative period there are more dangers than at the end [illegible] of [illegible] convalescence. It frequently and [illegible] [illegible] is extremely dangerous and very often fatal. [illegible] for any [illegible] care [illegible] from [illegible] and wife in confinement.

Causes.

[illegible] [illegible] [illegible] [

[illegible] transmitted by [illegible] articles of clothing. [illegible] latitude it is most frequent [illegible] spring and [illegible], but may occur at any time. It [illegible] children mostly between the age of 3 and 5 years.

Treatment.

The treatment of scarlet fever varies with the type of the disease. In mild cases there is but little or no treatment to be instituted [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

to be adopted in this disease —
(bearing in mind the general principles)
It is impossible to cut short the
disease itself in its course by remedies
which the Physician may ad-
minister, he can do little more
than assist nature to bear her
burden, or tide it over the most
critical stage of the disease, and
to check or treat symptoms as
they arise — certainly the
Physician is not to adopt a
"do nothing plan" but must
institute proper and active treat-
ment in each case. In the early
stage of the affection it [illegible]

is known to be loaded it is proper to give a prompt and stimulating emetic, such as Ipecac. or Sulphate of Zinc 3ss, or if the bowels are constipated a mild laxative may be given, as Magnesia followed by a little lemonade, or Solution of Citrate of Magnesia, or Rochelle Salts ℥i-ii to a child 4-5 years old. The room should be kept cleanse and well ventilated, but care taken that no drafts or currents of air stay upon the little patient, as it may be very seriously affected by such or such exposure. The temperature of the apartment should be kept

[illegible]
68°–72°? [illegible] the [illegible] excitement is rather severe, it is well to keep the temperature rather low (68°) than high, and in case of retardment of the [illegible] it may be slightly raised (to 70°–72°). During the [illegible] febrile excitement, cold or tepid baths, ranging from 70°–80°, are very beneficial, & if I were to choose I would rather be cold at all most cases, for reasons rational and satisfactory to science the [illegible] doubtless an aversion in the popular mind against such a mode of treatment, a tepid bath

[illegible]

[illegible]

[illegible]

[illegible] vinegar as a can-
drink; with attention to the
[illegible] confined to the [illegible],
[illegible] to eat, [illegible]
will be necessary to complete the cure.
[illegible]
[illegible] treatment [illegible]
As a general rule the patient should
be separated from the [illegible]
family and intercourse interdicted
save with the attendant or nurse,
at least as a [illegible]
It is well to [illegible]
[illegible] will [illegible]
and after convalescence the [illegible]
[illegible] to the [illegible]

whitewashed before it is again
occupied. Where the cattle have
come and the [illegible]
[illegible]
the infected [illegible]. The
cows must [illegible] but
may be allowed the [illegible]
of their communicated land, as we
have been much used to [illegible]
by putting the [illegible]
[illegible] over it the [illegible]
[illegible] have [illegible] the
method alone is the best [illegible]
of scarlet fever. [illegible]
[illegible]
[illegible]

more agreeable application and
as equally efficacious [illegible]
[illegible] [illegible]
This has the merit of being a more
agreeable method of [illegible] [illegible]
entirely [illegible] [illegible]
[illegible] or [illegible]
[illegible] [illegible]
times a day, [illegible] [illegible]
and is also good for the skin.
In the treatment of the [illegible],
baths or [illegible] [illegible] all
the [illegible] [illegible].
The use of acetic acid is good by
some in all forms of this [illegible]
[illegible] [illegible] [illegible] [illegible]

[illegible] in some way, keeping the [illegible] the blood in a fluid state, and beside this, [illegible] stimulating it is invaluable as a valuable remedy, where the disease takes on an adynamic form, it is a good diffusible stimulant. The dose of quinia in doses of [illegible] V [illegible] diffusible remedy. Preparations of bitarine are [illegible] Among the [illegible] may be given to nine [illegible] doses of from gro V – X.

Plenty of cold water should be allowed when thirst requires it, and ice [illegible]

the throat could be [illegible] in
often found very useful to the
sufferer — especially if congestive
symptoms and inflammation are
severe. In this form of sore throat
while venesection, tartar emetic and
calomel, or drugs depressing [illegible]
are injurious to subdue the inflam-
mation, yet some combination of
leeches will often be found to give
considerable relief. Antiseptic [illegible]
and gargles may also be efficacious
in changing the nature of the inflam-
mation, and it is a useful one.
Among these [illegible] recommended
is a strong solution of [illegible]

Lilac (No. XX - XX to Engine 3 b.) a solution of Carbolic acid, a small quantity of Cresote in Phosphoric acid (No. X - XX to Engine 3 b) with a small quantity of 1.0 x c. Phosphate of Soda, to hold it in solution.

X. Hydrogenous acid
Chloride of Potassium
Water } VI

Mr Ross suggested a tangent gauge to be fixed in the Engine house, instead of using the footrule or washer gauge. It would be much more and more efficient. He stated the fact afforded, where there can be none, for children under 3 years. Mr C. Cox

not be induced to gargle without
some difficulty.
In the mean time a drink of Cider,
Potass, will frequently be found beneficial. It is made thus in doses of
a wineglass full at a time,
R. Gargle made of Hay and Tea and
Lemon juice is often very good and
highly recommended. If the mouth is
much swollen see to the outside.
A good stimulant and anodyne
liniment for the neck is made thus
℞.

Soap Liniment ℥j
Camphor Lin. ℥ss
Tr. Opii ℥ss

[illegible] in the [illegible] from the [illegible] stomach. [illegible] pressure in the nares, inject cold water and salt, in a solution of [illegible] (gr. V–X to ℥j) [illegible] the syringe [illegible] be [illegible] to avoid this [illegible] appears, [illegible] and restoratives must not be neglected.

In the treatment of the [illegible] is varied as the case requires. When there are grave nervous phenomena at the outset it is [illegible] to bleed. The [illegible] hot and pulse very rapid (140–160) a [illegible] bath and cold to [illegible], or a plunge bath [illegible] cold bath (gr. [illegible]) should be given, the patient being in it for 15 or 20 minutes.

Internal remedies should be of a sedative nature - stimulants as Carb. Ammonia, Tinct. Digitalis, Ammonia & Camp. for the [illegible] as gtt. xv - xx.

[illegible] abate the heat should be made bowels, the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] efficacious at this period.

For the dropsy intervening, cupping over the Kidneys and draw from ℥iv - iv, or if it [illegible] a weak [illegible] [illegible] be sufficient. [illegible] [illegible] [illegible] [illegible] [illegible] to give the child moist warmth. Give plenty of fluids to [illegible] [illegible] [illegible] & bad practice to [illegible] [illegible] [illegible]

[illegible] Iron
Chloride, Sodium Acetate [illegible] and
Ammonia Acetatis, makes a good com-
bination for that condition. Cathartics
are usually certain to [illegible] follow.
Among the best may be mentioned the
Citrate of Potassa and Senna, or the
F.L. Extract Rhubarb [illegible].
Where there is great relaxation and
weakness, and the patient [illegible]
if the factors functions of [illegible]
[illegible] are [illegible] the
days we can then give a "cordial",
in the mean time feed well.
Where there are any symptoms of
[illegible] [illegible] in the [illegible]

of this disease, we must give
[illegible]
[illegible]
according as the case may be.

TYPHOID FEVER.

Wm Harris.

[illegible]

[illegible]

Cognizable among the several pyretic affections which frequently present themselves to every practitioner, typhoid fever, both by reason of the guar care necessary for its proper treatment, and its concomitant lesions, and complications, occupies a by no means inferior position in the general classification of these diseases.

Such a peculiar subtilty attaches itself to this disease, that many points have still eluded a satisfactory explanation, and a complete cognition of its natural dependencies, and

essential principles, has so far baffled the researches of the most able workers, though the untiring assiduity and praiseworthy energy of some patient observers, will no doubt be eventually rewarded with success.

A true recognition of this disease is rendered necessary, both by reason of its mortality, and the proper care required to be bestowed upon its proper management; and though there may be some difference of opinion in regards to the offered explanations, in answer to the various phases,

and manifestations of the dis-
ease; yet no doubt by a due
consideration of the proffered
explanations, and attendant
propositions, such a means
can be established from the
extremes, as will appear of
a sufficient consistency to
each inquiring mind.
In the study of all questions,
which may in any way in-
volve the presentation of
opposite views, and theories; it
seems but fair, that each
person should be allowed, to
hold his own particular theory
in opposition to those presented
by parties of a widely different min

and direction of research; provided it be in any way tenable; and thus very non-coexistence of opinions will in all probability, by reason of the zeal with which it inspires those parties deeply interested, and the mental contention to which it gives rise, tend to accumulate fresh stores of knowledge, and by the very antagonism, new tendrils will be thrown out in the form of mighty intellects, which will ultimately grasp those long unfathomed secrets of nature, bringing to light truths previously buried in obscurity, and irresistibly force them

upon even the minds of the most sceptic.

The disease under consideration is known under several distinct names, each of which is intended to designate some individual peculiarity, or convey comprehensively, as near a general idea of the affection, as may be derived from the use of a single or more terms.

The selection of these terms is of course at the option of the student, still it is necessary that he should become acquainted with the various appelations under which the disease goes, in order that we may quickly recognise

the complaint when met with in the course of his readings.
The name by which it is usually designated in this country, is that of typhoid fever, derived from two Greek words, the one τῦφος, meaning a stupor, a name from which its somewhat kindred complaint typhus fever, has received its appelation and the other εἶδος, conveying the idea of its resemblance to that affection.
Bretonneau was accustomed to consider it under the name of "dothienteria" the Greek etymology of the word marking out in particular the characteristic

abdominal lesion; Trousseau favorably impressed with this name, used it almost exclusively in the course of his clinical lectures at the Hôtel Dieu. But Bretteau did not confine this term exclusively to typhoid fever, for he considered the Peyerian lesion to be the essence of a large class of fevers.

Symptoms.

To begin with; the stage of invasion in typhoid fever is slow and insidious, it being more gradual than typhus fever.

The appearance of a person about to be afflicted with typhoid fever, is though languid, and

oppressed, more free of the duskiness an muddy hue of typhus.
The disease generally greets him with an exceedingly annoying headache, often combined with an occasional feverish flush; he is apathetic; his animal spirits are at an ebb. He is likely to imagine these annoying symptoms to be of evil portent; the forerunner of some impending calamity.
The fever is often in its early stage characterized by epistaxis.
Many persons can walk about

not knowing or recognising the existence of the disease; but they may die suddenly from some transient complication.
After these early symptoms, which may last for several days, the disease is established by the occurence of a chill, followed by the ordinary phenomena of fever.
There is a disposition to diarrhoea, which occurs spontaneously, or may be hastened by the administration of an aperient.
As the disease advances the aforementioned symptoms become aggravated, the pulse becomes more

frequent, and strong, the skin hot, and dry, the tongue is parched, and reddens at the tip and edges; if pressure be exerted in the right iliac region, a gurgling sound may be detected, and the patient will complain of pain; this peculiarity is owing to the involvement of the glands of Peyer. About the end of the second week, if the surface of the abdomen be examined carefully, there may be discovered upon it, a number of small red spots, which disappear when pressed, but immediately return upon the pressure being removed; these are the so called rose-colored ben- Eruptio

ticular spots, or taches rouges, and constitute a characteristic eruption.
The spots of typhoid fever are not apparent on the cadaver.
As the disease advances, so does the diarrhoea, from three to six stools or even more occurring daily. Dischar:
The special characteristics of the evacuations are peculiar, and are for the most part distinctive of the disease, they are of a yellowish ochre-color approaching somewhat in resemblance to pea soup.
When during the course of the

fever, these stools continue day after day, amounting to several in number in the twenty-four hours; then with safety it may be inferred, that there is an existing ulceration in the bowels, even though no signs of pain be observed by the patient.

The same conclusion may be arrived at by the hemorrhage, if it be observed in this stage of the disease; to which there is often a great tendency.

According to Trousseau, the characteristic ulcerative eruption, formed at the expense of the aggregate and solitary

Morbid A

glands of Peyer, does not begin to appear until about the fourth or fifth day, and some observers state that it may be delayed as late as the seventh or eighth.
It is gradually accomplished in the space of two days, all the glands implicated not becoming affected at the same time; and the eruptive stage being over on about the seventh or eighth day of the disease.
The aggregate glands become much congested, and enlarged, both as regards their length and breadth, the

solitary glands project into the intestine, and along with these successive changes taking place in the aggregate, and solitary glands, the mesenteric become involved.
After the glands have reached their height of turgescence, either resolution takes place, or the affection continues, and proceeds through all its stages.
Later the enteric involvement, which had hitherto been simply, assumes a somewhat furunculous appearance.
The affected glands become prominent, presenting the

appearance of red conical granulations with depressions on their summits, which increase in size, till they form a core of reddened tissue, stained with an ochre hue by the bile, which at this stage of the disease is very abundant, and has a special tint.

Soon after the core, if formed, is detached, leaving behind a deep ulcerated depression, at the bottom of which may be seen the muscular coat of the bowel.

Some five or six ulcerations of this kind may be seen on a single patch of the

aggregate glands, looking somewhat fungoidal in form, making it often difficult to recognise the existence of the gland which is the seat of the ulceration.
After these changes have taken place, the ulcerations begin to appear more superficial, and gradually begin to cicatrise; they ultimately cicatrise, but frequently not till the thirtieth day of the disease.
The intestinal eruption is mostly situated in the lower part of the ileum, and the closer it is to the ileo caecal valve, the more confluent it

becomes.

These spots are formed in the lower intestine, but, rarely if ever, as high up as the duodenum or stomach.

The temperature in typhoid fever has of late been made a special study.

The rise from 98.5° (the normal degree) is gradual, during the first four or five days; reaching 104° on the evening of the latter; sometimes 104.5°. Temperat.

An attack of the disease in which on the second day the heat in the axilla is as high as 104° is not typhoid fever; and the same exclusion applies

if from the fourth to the eleventh day the temperature falls below 103°.

A difference of 1° or 1.5° between morning and evening (greatest heat, the latter) is usual; the reverse is not a good sign.

The marked tendency to a morning fall and evening rise of temperature is almost pathognomonic of typhoid fever.

Towards the end of the second week, lowering of the heat below 103° is always favorable; persistence at 104°, 105° and 106°, shows a severe case.

The value of proper hygienic measures cannot be overrated in the treatment of this disease; but by watchful care, the patient must be prevented from exposing himself, from the beginning to the end of the disease.

Treatment

The hygienic precautions are often of more value than the medicines; but of course medicines form one of the principal features of the affection.

Medicines are almost always given for the complications; not generally for the disease itself.

There may be cases of the disease fully abortive, but these are of very infrequent occurence.

It is not known whether the medicines said to abort the disease really abort it or not; it is only a matter of mere supposition; yet there is no doubt, but that there are such abortive cases, but it is not very likely that their abortion was due to medication.
Ammonia is often given in typhoid fever, in the same manner as it would be used in typhs-
-pneumonia, where symptoms of great adynamia exist
In ammonia we have two advantageous peculiarities when employed in the affection; first, its action as a stimulant; and secondly, it posesses marked expectorant powers, thus

last property making it valuable when any lung complication may be present along with the fever. It may be given in the form of aqua ammoniae, ten to thirty drops in water.

In conditions of obstinate hiccough sometimes met with in typhoid fever resulting from irritation of the phrenic nerve; musk has probably given more satisfaction than any other article used for this purpose; and in cases of failure, it may have been due to having used an adulteration.

Physicians seem to vary in regards to the amount that should be given; some say that two or three grains

should be given at a time, others hold that the dose is twenty grains; this difference is owing no doubt to the adulteration of the musk.
In Russia sumbul is employed in typhoid fever, when the use of musk is indicated.
Opium is often used in typhoid fever, to relieve pain, and to procure sleep; and in cases of extreme diarrhea it may prevent the perforation of the coats of the intestinal canal.
Opium is also used for the delirium, but in this symptom it must be used very cautiously; its influence must be watched from time to time, and the pupil must be closely

observed; if it is dilated in the delirium, then will there be an indication for the employment of opium in small doses, but if the pupil is contracted then it is necessary to use the agent with great caution.

The delirium of typhoid fever is due to the asthenic condition of the brain, an so the stimulant effect of opium on the cerebrum will be the manner of its beneficial action.

It tones and braces this organ, and puts it in a condition for healthful sleep, which take the place of the delirium, and if diuresis occur, then it may be

known that it has been acting well.
One grain of the sulphate of morphia may be dissolved in an ounce of water, and if there be a tendency to sleep the dose of the solution, (one drachm), may be repeated in the same cautious way; but if the delirium be aggravated and becomes more violent, the morphia should be withdrawn, the delirium then very likely depending upon some irritative lesion.
Opium again is very valuable when perforation is thought to have taken place, the physician can come to the highly probable conclusion that this has occurred, by the sudden aggravation of

the pain, and the marked increase of tympanites, rendering it certain that perforation has taken place.

This condition is better combatted by opium, than any other drug, by lessening the peristaltic action of the bowels, and thus lessening the chance of the alvine contents escaping into the peritoneal cavity, and it also has a tendency to check the inflammatory process.

If peritonitis is suspected, one grain of opium should be given at once, and repeated at intervals of one or two hours; it is remarkable what large

quantities of the drug can be borne in this condition.
The use of hydrate of chloral is by no means of inconsiderable importance in the treatment of this affection.
In typhoid fever there is a preternatural alkalinity of the blood, a larger amount of ammonia is present as one of the products of waste of the tissue thrown out into the blood, rendering it abnormally alkaline; here the chloral entering into combination with the alkali of the blood, may put the patient in a more natural condition, rendering the blood less alkaline

just as muriatic acid is given to cure the alkalinity of the blood in this same affection. Constantly in the course of the fever, conditions are presented calling for the use of nervines and soothing agents.

Sleep is often found wholly wanting for two or three days, and chloral is given to counteract this condition, and along with this to alter the extreme alkalinity of the blood.

The patient being brought under its influence, he awakens feeling really much better than before, no doubt from the alterative effect it brings about in the blood.

One of the most important duties in the treatment of typhoid fever, is the proper administration of alcoholic stimuli; this necessarily requires a great deal of the physicians ready tact, and serious consideration.
When death seems imminent from sheer exhaustion, life appearing to be barely balanced on the scales of chance, with an increasing tendency to yield in favor of the former; then is it that the physician, being prepared, having foreseen the emergency, advances with that revitalizing agent, alcohol

which though it has been the source of much trouble and misfortune, it now fulfills a most important and useful service towards the management of this troublesome affection.
But yet with all the advantages offered by the proper employment of so valuable a stimulant, it is too well known that many physicians, necessarily of very humble pretensions, abuse this agent so generously bestowed on man, by ever-bountiful nature; they are fully aware of the benefit which accrues from

its judicious use, but, at the same time, either from their non recognizing the importance of a due consideration of the exact conditions in the disease which call for its use, or from ignorance as regards its proper administration to suit these conditions, great harm has no doubt been caused by its injudicious employment.

In typhoid fever we should give alcohol in such amounts, that its stimulating effect may be retained, and its sedative influence got rid of. Patients suffering with this

disease, generally die from weakness of the heart, its sounds growing very low; the auriculo-ventricular valves seem to produce no sound at all, and the aortic sounds are exceedingly weak; these are the great indications for the employment of alcohol. It causes tranquil sleep, in low, and muttering delirium, and when this is brought about it can be thus known whether the alcohol is doing good.

If it is found that the pulse runs from 120, and beyond, and that there is

an inability to get healthful sleep from the perturbed condition of the mind, and there is a liability to pass into coma, or delirium or both; under these circumstances support is necessary. If meat and beef tea can be taken, and digested, they should be given; but if the digestion is impeded then alcohol must be given in repeated doses.
The rules in typhoid fever are, that when there is marked feebleness in the hearts action, and the pulse runs to 120 and over that in the

minute, then alcohol should be given in varying quantities as it is required; if it acts beneficially, the tongue will be found to become moist, the hearts action less frequent, and more forcible, with the cessation of coma if it existed.

Alcohol may be given in the dose of one half an ounce every hour, or half-hour; but if the milder ardent spirits do not produce the desired effect, brandy must be used.

The pulse must be noticed,

the effect of each dose of alcohol must be watched. If the patients face is flushed, and the delirium increases, either the alcohol has been given in too large amounts at a dose, or its administration begun too early.
In the very low conditions, alcohol may be given more recklessly, than if it were earlier in the disease.
Compression of the pulse is a very important symptom of the disease, it may be sure, and slow, or easily compressed, its forcing power being really weak; the alcohol

will increase its force.
Port wine is best employed in typhoid fever from its astringency.
The stronger wines are better to employ as stimulants; as Port, and Sherry, but when they excite nausea, they had better be withdrawn, and Champagne administered for the soothing effect of the carbonic acid it contains.
An excellent form to give wine in, is in that of wine whey; here we have the stimulating action of the wine, with the nourishment of the milk; it consists of Sherry

wine Oss to milk Oj.

Turpentine has been much used as a general stimulant in typhoid fever; after the first day, in the latter part of the second week, in which there exists a condition characterized by increased debility, with a sudden parting of the tongue, leaving behind a hard, shiny, glazed appearance of the organ, all this is from the ulceration of Peyers patches.

When the cleaning is made from the middle to the sides of the tongue, the appearance is one to be

considered to betoken that which is going on in some other part; here the turpentine comes in very well, probably by making a coating of albumen on the ulcerated surface, or by contracting the capillaries of the part. Along with the state of the tongue, tympanites is likely to occur, and probably the turpentine helps to expel the flatus.

It should be given in the dose of ten, or twenty minims; it is better to give it in the form of an emulsion.

In the intestinal hemorrhage

of typhoid fever, the administration of turpentine is better for arresting the flow of blood, than any other remedy possessed. Hunter says it acts by its astringency, but this cannot be so, yet it does act, and only acts as an haemastatic, probably by contracting the capillaries, or by coating the parts with albumen.
More reliance can be placed on turpentine, than any other agent for this purpose.
There might be some oozing from the ulcerated surfaces of Peyers patches, or a

general flow; in such a condition as this turpentine acts with greater efficacy than any other agent used for the same purpose.

Wm. Gaines
Baltimore.

Fry Henry A
1876

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A

Dissertation

on

the Formation of Cold

by

Isaac E. Gordon.

1870.

Lobar Pneumonitis.

Pneumonitis is an inflammation affecting the parenchymatous portion of the lungs, termed by some, catarrhal fever, lung fever, and such names as are suggested by expressive of the nature and seat of the disease. Chemists tell us that the parenchyma is composed of lobules; and that these lobules are made up of the different bronchial tubes, air-cells, and the minute ramifications of the pulmonary and

bronchial vessels, lymphatics, and nerves; bound together by areolar fibrous tissue.

The air cells are lined by squamous epithelium characterized by its tenacious consistency, differing from the columnar ciliated epithelium with less consistency covering the mucous membrane of the bronchi and its ramifications.

The inflammation is either circumscribed, lobular, or lobar. The first may be brought on as the consequence of a

wound, as the accidental prick ing of the lung with a trocar in the operation of "paracentesis thoracis".
The second is a rare disease, but upon this point there is some dispute. Occurs sometimes as a complication of capillary bronchitis, from which we have no absolutely positive signs distinguishing the two diseases, and our only resort is in the accompanying phenomena attending each disease. The third is the most common form

of the disease, and is the part the subject of our dissertation. Lobar pneumonia has three stages, viz., first the stage of engorgement, second the stage of red hepatization — third, the stage of gray hepatization. In the first stage the lung is red, congested or engorged, being heavier than when in health — is less elastic, floats on water, but is much more friable than it would be if not diseased. This stage of the disease does not last long, but is rapid

by succeeded by exudation,—
at which time the air-cells
cease to contain air being
distended with exudative
matter. In this the second
stage, the weight is much
more increased is solid
and friable, closely resembling
liver. In water the lung
sinks, and upon making
a section a fluid red and
thick is seen to exude, and
with close examination
the cut surface has some-
what of a granular look,
being some degree smaller

in their appearance in the lung of the child than that of the adult. At this stage the lung has but little blood. Some of the exudative matter is expectorated, i.e., provided the patient is old enough to expectorate, but the most of the matter is removed chiefly by absorption.

The increase of weight in this stage is due to some of the solid constituents of the blood being withdrawn. The air cells returning to their normal size, and

resuming again their natural function while the life giving blood from the right ventricle of the heart is allowed to pass freely through the pulmonary artery into the capillary distribution over the air cells — there to be renovated, and passed back by the pulmonary veins and heart to the system, giving new life and strength once more to the better patient. Should the disease go into the third stage, the red color will soon

desquamation owing to the presence of fibrine, and pus - the latter being mottled with yellow and finally of a greyish yellow. In now still more friable and less granular, giving out pus upon pressure. It is claimed by some that grey hepatization is not suppuration, but a fatty degeneration; hence pulmonary abscesses are much more common in the child than in the adult. In about one

half of the cases we have pleuritis coincident with pneumonitis on account of the anatomical relations of the parts, and is very frequently termed pleuro pneumonia. Emphysema in some few cases, but as a rule this is rare. We may have bronchitis along with pneumonitis, but this is also rare, and exceedingly so, save in that portion of the lung ahead of disease, as there is certainly no tendency to bronchitis pure

pneumonitis. May have double pneumonia, but this is also rare if proper treatment be instituted. The inflammation is stated oftener in the right than in the left lung. Occupies the base in about thirty one cases to twenty one in other part. and in children occurs at the apex. The inflammation beginning at some point almost always extends from lobule to lobule until the whole of a lobe is involved.

Pure lobular being rare, chiefly lobar is the most common form. The inflammation at times spreading rapidly in some cases, while at other times and other cases occupying several days.

Sequelæ. In about one third to one fourth of the cases in the adult there are premonitions of them a few days before hand, but in majority of cases the patient has a well marked chill. In about one fourth of the children under

two years the prodromes are more general as catarrh of the bronchial tubes preceded by bronchitis. The humid cough (which is generally dry), high fever, and pain on inspiration indicate more than bronchitis. Convulsions occurring under these circumstances, we may suspect pneumonia. When the disease comes on without prodromes such symptoms as indicate that the child is not well, as restlessness,

and then showing a disposition to not respiration becoming more and more hurried while the nursing is irregular owing to the embarrassment which the child finds in making expirations. Extremities may become cold, while ~~and~~ the body is yet hot; pulse ranging from 144 to 151. Respirations superficial and from 40 to 50. The child will now seize the nipple with great avidity to satisfy the wants of nature,

and becoming, by the difficulty with wich respiration is carried on, turn blue with a contracted brow and countenance pinched, presenting an appearance which, is truly indicative of suffering and anger, blended the one with the other: the anger arising from an ineffectual attempt at gratifying an insatiable thirst. In first stage will find respiration generally feeble, sometimes harsh over the chest; may hear fine sub crepitant rale, but seldom

do not hear the crepitant in small children. At times the expiratory murmur will become masked from the involvement of the pleura. In the second stage the dullness on percussion is marked, and the bronchial respiration established. At first is heard generally during expiration, but is some distinct enough to be heard both in inspiration and expiration. Usually runs into the third stage in young children. In those of five

or six similar to adults. From two, to two and a half years the onset is generally sudden. Complete anorexia with great thirst. The digestive organs are usually disturbed in these cases with constipation, diarrhoea, vomiting and c., but as a general rule seldom do we have diarrhoea.
No matter how the disease comes on within forty eight hours the physical signs will be found at the base one lung - often the right, but may occur at the apex of

either lung. Upon the fifth, sixth, or seventh day we may form a prognosis as the crisis will have declared itself by this time. After five days we have the crepitant rale, but under fine, harsh and sometimes feeble respiration in stead, generally preceding the fine sub-crepitant rale. In certain cases of pneumonitis the crepitant rale is not heard either in adults or children. Bronchial respiration, bronchophony are the, follow the physical signs usually

during the second week.
The bronchial respiration becoming more especially on expiration on account of the yellow elastic tissue of the lungs becoming impaired.
The lungs clear up and the dullness is less marked — the coarse sub-crepitant and mucous rales are heard and resolution rapidly follows.
Can not diagnose the third stage unless cavities have formed. Death often occurs, should it occur at all before the third stage is reached.

Heat of skin is a remarkable symptom in all cases of pneumonia. In mild cases unfavorable seldom goes to good (with). After crudation stage passes, the acuteness of the fever subsides, and this is generally within a week. It always passes into the second stage and sometimes within forty eight hours. The pulse is generally increased and more in the crudation stage than any other. During the first week the pulse is seldom less than

130 and often runs to 140-180.
There is generally a bright scarlet flush of the cheeks, which gradually fades into a deep ash. Inspiratory acts may amount to sixty or even as high as eighty per minute.
The expiratory moan is a sign of great value. In health as a rule the pulse is four times as frequent as respiration, but in pneumonia this ratio is greatly increased — more so than in any other disease. Differences in children and adults affected with pneumo-

tis. Sputa is swallowed by small children — in older is spitted and not a little dust color as in adults. The pain in the child can only be surmised — will generally scream out suddenly and then cut the cry short. In those old enough to talk will often complain of pain in high gastrium or lumbar region. Nervous symptoms are very prominent as headache, vomiting, intolerance of light, vomiting with high fever: or we may have some what of an epileptic

condition of things as listlessness or drowsiness. In some cases there is great irritation of the gastro intestinal tract, and the chest which is the seat of trouble may be overlooked. In malarial districts other symptoms may be taken in in addition to the above there being a majority of cases suffering some kind of the remittent type. There may be some remittency when there is no malaria, especially asthmatic cases, but not so well marked as the latter.

The disease may be troubled in by a child for first few days. The malarial complication is generally of the remittent type — free and generally of the quotidian. Nausea, bilious vomiting, icteric appearance of skin, and C., with many other symptoms. Nausea with uneasiness over the epigastrium recurring regularly in the afternoon is an important indication of malaria being blended with the disease. Vomiting of bile matter may be as

cases. The tongue presenting a grayish yellow tint, slightly moist, but becomes darker and finally brown in unfavorable cases, with sordes upon the teeth. The skin is yellow, and the sputa may also be colored with the coloring matter of bile.
The pneumonia and malaria seldom go together; or the malaria may be developed afterwards during the course of the pneumonia; or the pneumonia may be intercurrent to the prevailing malaria.
Diagnosis- Pleurisy is sometimes

six years compared with pneumonia, besides the pain is more severe as known by children's cries. Pleurisy may exist without pain and often does: in majority of cases pain is so slight as would hardly lead to the suspicion of pleurisy. Changing the position of the child, while auscultating and percussing enable us to exclude the disease if the proper signs are not present. Capillary bronchitis may be mistaken for pneumonia, but the physical signs will be very apt to distinguish them; besides the dyspnoea is much greater

in pneumonia. The lobular form of pneumonia occurring secondary to capillary bronchitis has a fever, not so high, but the marked regularity of evening exacerbations which is characteristic of almost all cases of bronchitis. Should auscultate the chest & notice ratio of pulse to respiration, & be able to define accurately between lobular, mucous, & pneumonia for first two or three days, & close attention to all the signs & symptoms after this will enable us to make out the disease. In lobular pneumonia

the vomiting is much greater. Central pneumonia occurring assumes somewhat of the type of typhoid fever, but in pneumonia the fever is higher than any other disease of childhood. In children old enough to manifest if delirium occurs should examine the lungs, and especially the upper lobe.

Prognosis. — It is rare that death occurs between 13 and 21 years. Mortality very great in the two extremes of life. Under 2 years the danger is very great, & more so, if it is secondary to another disease. The latter is more

favorable in children than adults. Mode of treatment has a great deal to do with prognosis; besides the influence which the extent of the disease exerts. Proportion of deaths is from 2 to 6 times as great in bilateral as unilateral, and is still greater when the whole of one lung is involved. Fatality greater in females than in males, and in the feeble than in the robust; and is more fatal when the right lung is affected than the left. The prevailing type of the disease also influences

the mortality, some epidemics being much more fatal than others. The time at which treatment is commenced has a great influence, the danger being greater in proportion to the delay. Cauterization. Sometimes due to exposure, but this is true in very small proportion of cases; but cold and variable weather produced a greater frequency of the disease, and is greater in proportion to the severity of the winter. Is more common in Southern than Northern states, and is

due to variableness of the climate. It exists often as an epidemic, especially upon Southern plantations. In some years there is a tendency to attack the upper lobe. There is a peculiar disposition to it in some persons, who are liable to recurrences - they may have it four or five times. Treatment - Bleeding may do good if properly done and at the right time. It is more effectual if done within the first three days. It called for in robust constitutions, full pulse, high fever

and great dyspnœa, in the first stage of the disease. It relieves the congestion of the right side of the heart and to some extent may relieve the inflammation. Local bleedings are often efficient. Under two years treat bleeding by cups and leeches ~~[illegible]~~ in best-bleeding from two to four ounces. Blood-letting indispensable in the second stage. When bleeding is resorted to always see that sufficient alimentation is secured for patient, as this mode of practice may at times

result in serious injury to the child. When the skin is hot and dry, and pulse rapid, volume and strength, tartar emetic in small doses every two or three hours, given with the acetate of ammonia or spirits of nitre, but not pushed to produce prostration or nausea. The neutral mixture may also do great service in allaying the symptoms. If bowels is heavily coated, skin tinged, may give calomel in combination with golden

sulphuret of antimony, as follows. ℞. Hydrargyri chloridum grij; antimon sulphuret grij; Pulv. Doveri grs xij; Sacchari grs xx M. Ft. pilulae No. xij. Sumat unam 2 vel 3 horis. Should avoid purgatives in pneumonia. If the dang. is still the fatigued eye, the disease is over may give Iodide of Potassium, and if bronchitis is present may combine with it syr. Senega, but avoid purgatives from senega as it is sometimes known to act as a purgative.

Counter-irritation by mild means should be made use of in consist.

with the oil silk jacket, and when the time comes for the removal of this jacket, it should not all be done at once, but by the scissors remove daily some of it, so that the change may not be too sudden. For a child under 2 years soft linen should be used, Vaseline lotion may be given if fever is intense, and there is no tendency to asthenia, but is seldom called for and should if used be watched with great caution. Under two years and especially under twelve months iperac is better than

tartar emetic. Sulphate of Iron may be given with syr. Ipecac. Milk and broth should be given throughout the disease. When the acuteness of the fever has subsided food becoming soft and showing adequate food, stimulants and support is the main result. When complicated with malaria give Quinine in combination with digitalis powder and Sulphate of Iron. Quinine sulphate in two doses from twenty grains for a child three or four years old given during the intermission or remission. At the same time

that the Quinine is given for the malaria the pneumonia requires the usual treatment. Quinine is good in all cases of pneumonia whether complicated with malaria or not. This is a good formula for administering it.

℞. Quinine Sulph grs. xij – xxiv
Acid Sulphuric gtt. xxii xxxij
Tinct. Digitalis gtts xxx
Spt. Ethereus nitrosi ℥ ij
Aquae Aurantii flor ℥ xii M.
S. ℥ j every two hours during liquors.

℞ Morphiae Acetas grs ss
Acid acetic dil ℥ss
Vini Ipecac ℥ j mix & add
Alcohol dil ℥ iij ss.

Tartar Emetic is never given in any malarious disease; and when we have sufficient reason to suspect a complication of malaria the agent should not be made use of under any circumstances. If nausea and vomiting occur do not hesitate to give a little calomel as it allays nausea and vomiting and exerts a favorable influence over the disease. In the treatment of this disease we should bear in mind that it is impossible to cut short the disease, and that our

little patient will reach the shore in safety however distant, provided we sustain his strength with sufficient alimentation and do not overtask his system with drugs. The best that the physician can do is to be ever ready to assist at a moment's summons, nature in her mighty efforts to sustain the flagging powers of life, until the little patient has safely passed the tedious time and is seen once more to rapidly regain his former strength, by which he will

a fine grasp upon the equitable shore is enabled, to bring his rough, and tempestuous voyage to a happy terminus.

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R. H. Lemmon
'75-'6

Concerning the Physiology of Nutrition.

That "all work implies waste", is one of the primary laws of the science of Physiology. The work of the nervous system & that of the muscles, implies consumption either of their own substance, or of something else. And, as the organism can make nothing, it must possess the means of obtaining for without that which it wants; & we know that in the gross it does these things. The body feeds & it excretes. The process of the addition of new & necessary material & the subtraction of the useless & effete are designate "Nutrition", which Dr Dalton terms "Assimilation"

But in the nutrition of organized structures we have something more than the assimilation of Organic Proximate Principles contained in the blood, to living flesh; over & above all chemical & other dynamical phenomena wh take a part in this process. There is an element, the most important; wh is in no degree explicable by reference to merely dynamical agencies. That element is the morphological element. No kind or amt of force can explain the fact that in its original development & subsequent growth & maintenance, an animal

on plant adheres to definite types or patterns of structure. For we see the most varied types springing up under identically similar conditions. In the development of typical forms we recognize not only the constructive force wh' does the work, but a direction agency wh determines the plan. The former, the strictly dynamical effects manifested in the development of the organism, are to be explained by reference to an equivalent expenditure of force ab extrinsi; but the determination of the typical form; wh' is entirely independent of the amt of

force evolved, is a phenomena of wh no physical agency can account.
As in works of art, so in development of organic forms, there is first the conception of an architectural plan & then the application of dynamical agencies for its expression. In a certain sense the distribution of matter & force may be said to be the cause of a work of art, but we cannot overlook the fact, that an intellectual conception guides the working powers, & is manifested by the conformity of the products to an ideal pattern. Morphological phenomena then; do not admit of

generalization in terms of physical force. On the other hand however, they may be generalized with reference to final causes, or their adaptation to useful purposes (the teleological principle) & also with reference to the principle of "conformity to typical patterns". Concerning wh we quote fr the great Agassiz:- "The simultaneous existence of the most diversified types under identical circumstances; exhibit thought & ability to adapt a great variety of structures to the most uniform conditions. On the other hand the repetition of similar

types under the most diversified circumstances shows an immaterial connection between them. It exhibits thought, proving directly how completely the Creative mind is independent of an influence of a material world. Natural History, much in good time become an analysis of the thoughts of the Creator as manifested in the animal & vegetable kingdoms" (Agassiz). This then is the only explanation we can be given of organic forms, they are not caused by "incident forces acting upon formless colloidal matter"

as Herbert Spencer vainly tries to prove; but they are inherited, being transmitted from generation to generation from the first created ancestral form of each species, & were intended to show forth some of the attributes of a beneficent creator; both by their subservience to useful purposes & by their adaptation to amuse & gratify the aesthetic faculties of rational creatures. We may however legitimately investigate the conditions under wh the actual constructive work is performed, so far as it involves the operation of dynamical agencies, & is therefore explicable in terms of physical forces.

What we then mean by the term "Nutrition" or "Formative Force" is the aggregate of the dynamical acts involved in the nutritive process. Leaving the morphological element as part of the question, not being explicable by purely physical methods. In the natural course of life this process is manifested in three modes: wh are only three effects of the same forces operating under different conditions, these different effects are (1) Development (2) Growth. (3) Maintenance by nutritive reparation. "Development" is a process by wh an organ or part orig

inally formed, or by ones imperfectly formed; advances to a higher grade of structure, adapting it to a higher order of function, the change being thus always a change of quality, the volume being increased or diminished indifferently. "Growth" & "Maintenance" are in themselves explanatory terms. When growth is unnaturally increased it is called "Hypertrophy" wh may depend upon the enlargement of the constituent anatomical elements or their multiplication (wh is Hyperplasia). The necessity for maintenance arises fr the law of limited duration of

life" for each anatomical element, & perhaps also from the more rapid waste incidental to the functional exercise of the organs. This law is easily noticeable in the hair & teeth, squamous epithelium cells &c, & may be demonstrated in the case of blood disks, bones (Haversian spaces &c) by the microscope. While in muscles & nerves the proof is inferential but conclusive, the products of the oxidation of these tissues being detected in the venous blood returning from them, as Kreatine, Kreatinine & the urates in case of muscles & cholesterine in the case of nerves.

The conditions of Nutrition are fourfold.
(1) Right state & composition of the blood: wh involves its adjustment to the special demands of each part of every tissue to a degree of nicety far exceeding all practised means of chemical synthesis.
(2) A regular & rah fan distinct supply of this blood duly adjusted.
(3) A certain influence of the nervous system, wh is rah so much essential as ch is regulative (by the Pneumogastric)
(4) A healthy state of the part, wh in its maintenance, is subject to the laws of Assimilation; but this law is more

on has resisted by the law of "analogous formation" wh tends to restore the normal conditions in cases of disease; that might otherwise be perpetuated. Morphological phenomena are susceptible of generalization in reference to two principles viz: that of adaptation to special uses, & that of conformity to type. All organic forms are constructed according to architectural styles, wh vary to accord with the uses &c wh they are destined to fulfil & is a legitimate & worthy exercise of a rational intelligence to study these plans of organic architecture just as it is

to analyze & find the ultimate composition of the bodies themselves & the uses to wh they are adapted, as evidences of the goodness, wisdom, & infinite resources of the Divine Architect of the Universe.

In discussing the various changes & transformations wh the Prox' Principles of the body in various forms & combinations undergo in the Great Nutritive Process, we sh be led to consider the different Processes of "Mastication", "Digestion", "Absorption" &c wh comprehensive & tedious as they wd be we have not time on

space to discuss, we will have to pass over them in rapid review.
After the food, (wh according to the law of limited duration, is designed to become organized & take the place of that wh has performed its function & is excreted) has entered the stomach, that part of it wh consists of the Albumenoid Proximates is at once put in a state of ferment by the Catalytic action of the Pepsine there contained & then converted by the Gastric juice into a common Proteid substance, Albumose, into wh they are all converted & from wh the Albumenoids wh we

find in the human organism are differentiated. The inorganic proximate & the Hydro-carbons (Dallon's first & second classes), pass thro' the stomach & on into the intestines, there to be acted on by the intestinal juices together with the secretion of the pancreatic duct (wh emulsifies the fat) & are acted on by these juices, finally being absorbed by the minute capillaries & lacteals in the projecting villi. The inorganic principles are absorbed unchanged unless they meet with chemical substances for wh they have an affinity, & enter into the composition of the blood.

These different principles are now carried by mean of the blood, thro' the {liver, spleen, glandulae aguminatae & solitariae, lymph & tonsil glands, & other ductless blood forming glands}, & the {tissues of the body generally}, the first class of glands wh in varying forms consist of a cellular parenchyma held together by connective tissue proper (a subdivision of Virchow's 2d class) manufacture the material thus supplied into the lowest organized form, the unit for wh or rather with wh all parts of the complicated human structure

is differentiated viz: the white blood cells, Leucocytes, amoeboid in character, a semiplastic mass about $\frac{1}{3200}$ inch in diam: possessing the power of throwing out tribal processes & constantly changing form. (hence amoeboform of low grade of animalcule). these cells are considered by some to be merely bits of protoplasm or bioplasm, & are the physical basis of life. Their analogues are found in the vegetable kingdom (See Huxley on "Physical Basis of life"). The liver is supposed by some to convert these leucocytes into red blood cor-

puscles, wh are differentiated together with most of the constituents of the blood into the various tissues of the human organism. The large size of this organ in early foetal life wd seem to render this probable.

We can follow no further the ultimate transformation of the vitalized proximate principles into the complicated & various tissues & structures of the human body. This much we know, however, that the process is regulated & controlled by a special system of nerves, the "Trophic" or "Nutrient" system.

wh have their origin in the multi-
polar cells in the anterior horns
of gray matter in the spinal cord,
this origin having been traced as
high up as the corpora striata.
They are sometimes called the
"chemical system" for this action
regulates chemical changes in
nutrition. Efferent fibers as motor
nerves but unlike them they do
not respond to the will. Under
emotional influences however,
these nerves will cause chemical
changes in the composition of va-
rious secretions, the milk of a

woman in a passion has been changed as to cause serious illness to the suckling infant.
The section of these nerves does not cause the death of the part to which they are distributed, but its growth & health are interfered with & the nutrition of the part is carried on just in the way a clock will continue to run when the weight has been taken from its pendulum, the general functions still being continued, but without that rhythm & regularity, the want

of wh, other things being equal, will much sooner cause paralysis & make it from the first less capable of resisting disease & performing its duties than the corresponding part.

Departure from the above laws & conditions of Nutrition causes derangement of health & many fatal diseases thus, Consumption, Scrofula &c are essentially diseases brought about by mal-nutrition, tho' we may not always be able to say what condition remained unful

filled. With the cessation of Nutrition we have "death" molecular death when only a part of the organism is affected & Somatic or Corporeal death when the organism as a whole has ceased to be such. & the machine gradually reassumes the forms of its constituent chemical components, & "dust is given back to dust."

Respectfully

R. H. Lemmon

Candidate for graduation in the Class of '76.

1876

Cases of

Encephalitis

by

A. St. Clair

Cases of Encephaloid Cancer.

Having within the last two years opened a number of times for the removal of this disease, I propose in this paper to give the history of some of these cases and the results of the operation in each of them.

Encephaloid Cancer is a term applied to a variety of malignant growths, including cerebriform cancer, medullary cancer, and soft cancer. It is characterized by quite pro-

[illegible] in that province of West Virginia in which I have been for the last eighteen years practising.

Case first — Child born surrounded with the appearances which accompany the shedding placental mass accompanied the rupture of the eighth or ninth fœtal membranes — the history of the case as given by the child's parents was that about a year previous until of pregnancy she received a violent blow over a bell on the eye — the complained of

fracturing bones a tense "cap-
sular" which has from birth through
nothing [illegible] or if not with
a month or two afterwards
they accidentally discovered
that the child was blind in
both eyes. He was [illegible]
experiencing severe pain in
and about the orbits, without
of first any [illegible] [illegible]
in the direction of the eye
was indicating that the dis-
ease commenced in the choroid
membranes. A short or month
after it became [illegible] [illegible]
the visible portion of the
eye became [illegible]

exhibiting the appearance of a disorganized mass. about two months before I saw him the cervix had given way. When I saw the case on the 20th of Oct. 1870, the tumor had assumed the appearance of a bloody fungous looking mass. The hemorrhages were it were frequent and profuse occurring almost daily. The patient appeared emaciated, pale, and exhibiting unquestionable evidence of the cancerous cachexia - as the patient was rapidly sinking and

[illegible] by [illegible] the [illegible] [illegible]
[illegible] of the disease [illegible]
from the [illegible] and [illegible]
[illegible] [illegible], which [illegible] and
[illegible] [illegible] and [illegible]
[illegible] by [illegible], [illegible] of the
[illegible] [illegible] [illegible] [illegible]
[illegible] the [illegible] of
the [illegible] of the [illegible]
[illegible] and [illegible] [illegible]
[illegible] [illegible] [illegible] the [illegible]
[illegible] of [illegible] of the
disease [illegible] [illegible] the [illegible]
[illegible] [illegible] [illegible]
[illegible] the [illegible] [illegible]
the [illegible] [illegible] the [illegible]

urethritic [illegible]
[illegible]. On reach an incision
from the pubis carried to
the bulbo-[illegible] transversely
the [illegible] with a double
ligature [illegible] a [illegible]
and [illegible] the [illegible]
the corpus cavernosum and [illegible]
separating it from the [illegible]
muscles [illegible] the recti and
oblique muscles and [illegible]
[illegible] the epididymis and
the epididymic artery. [illegible]
to the urethra and prostatic con-
[illegible] of the [illegible] [illegible] the
[illegible] with [illegible] as much [illegible]
[illegible] as [illegible]

[illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] of
the [illegible] of [illegible] the
[illegible], which [illegible] [illegible]
[illegible] by [illegible]. The
patient [illegible] [illegible]
the [illegible] of the [illegible]
and the [illegible] [illegible]
expressed great gratification
at being relieved so completely
from pain. The case [illegible]
left in charge of a [illegible]
physician with [illegible] to
use [illegible] [illegible] [illegible]
drugs to the [illegible]. The
wound healed rapidly and

in fig. 1 there is a small tumor
adherent with the tentorium
on his right side pressing the
head gently upwards in
weight and was affected
by intense headache about
six months before a small
tumor appeared above the
angle of the internal
maxillary on the same side
from which the tumor of
the eye had been removed.
very painful. a sharp shooting
pain. quite suddenly
and was so that the tumor
was glands appeared in
intervals increasing, and

ous cachexia against which he
relapsed. We were very anxious
until the disease
had made such progress
as involving the digestive
tissues of the needs that we
considered the case hopeless
and declined to operate.
had we been called earlier,
encouraged by the success of
the previous operation that
had temporary we certainly
would again have operated
and given the patient a
little longer lease of life
of nothing more. The
result [illegible]

[illegible] that the [illegible]
[illegible] that [illegible]
the first [illegible] the
the [illegible] is [illegible]
give to the use of consti=
tutional principles would
think have [illegible]
[illegible] again.

On this case [illegible]
[illegible] that [illegible]
[illegible] as a [illegible]
[illegible] the
of his treatment being
generally [illegible] in the [illegible]
of the country [illegible]
[illegible] or [illegible]
neighbourhood.

general Directions - but still
I have not that of fracture
or injury constitutional tran-
ment that I would have
had if the cases had be-
in any [illegible] fracture -

Besides - this [illegible]
Yard agent [illegible]
to me but I by just [illegible]
[illegible] by the [illegible] ex-
that she was in danger of
danger of bleeding to death.
that she had a large [illegible]
on her [illegible] - that a [illegible]
[illegible] had that [illegible]
[illegible]

and had flowed on towards
it it till the [illegible]
the invasion had been followed
by profuse hemorrhage which
the doctor had found impos-
sible to control, and had
left the dying woman to
[illegible] her fate.

Around a large birch
[illegible] mass of [illegible]
stones including its entire
circumference and extending
some distance above and below
the point - measuring 36 inches
in circumference - in rooting
the log a few days ago in the
[illegible] and [illegible]

unaffected in the a [illegible] in the
below the joints. as the tem-
perature still continued
and as a perfection was
the only thing in my opinion
the only thing against the
would give me a chance of
recovery O fractured and
unfortunately both angles of
the upper third of the tibia
anterior and posterior tibial
operations being caused to
have no disease of this
in the tissues or the bone.
The wound healed rapidly
two thirds of incision healing
by first intention. in three

[illegible] was [illegible] on [illegible] this
general health [illegible]
rapidly -

When we saw her once again
had the Symptoms not [illegible]
[illegible] in that neighborhood
improved and that one year
afterwards, on [illegible]
ly in excellent health - she
was exposed yet more [illegible]
to a cold sleety air - was
attacked with Pneumonia
that assumed inflammatory
& tuberculous disposition
manifest and that she
ultimately died of consump=
tion, within the [illegible]

was directly or indirectly the
cause of the lung trouble.
I do not pretend to say, but
the attending physician was
of the opinion that I was a
prehensive of a return of
the disease, watched the
case closely and is positive
that it was a case of circum=
scribed Phthisis Pulmonalis.

Case third. Riley Warnes
aged 50. case remarkably
similar to the case given
above. same stress and pre=
vious same characteristics
as Chas Gard. [illegible]

The carbolic treatment appears to have been marked. The lymphatic ganglions were involved. Amputation of upper third of thigh followed by recovered in general good health for one year. Tumor fell in cavity of adhesions. Grew rapidly. Died in a few months marked cancerous cachexia.

In this case used carbolic treatment, from the commencement. Over-dosed with O are very to "bandwagon" but with no effect.

Case No 4. Sarcoma Oris

aged 55. Brunchial or
bronchial - tumor - [illegible]
livid color - fleshy semi elastic
feeling - some lancinating
pain - about size of a mans
head - patient first noticed
enlargement nearly years
before coming to this
a tumor - head considerably
growing since - gradually
without last government
stir and hearing was entirely sup-
pressed of tumor - epinastic
and nervous tumor - and
as the consequence cough
was well marked and this
case being [illegible]

the disease would be pre=
sently prove to return - con=
cluded to pick hair under
the tonic effects of Quinie
as recommended by Gin
Astley Cooper - continued
it for several months - desist=
ing only when the constitu=
tional effects of the Quinie
became too marked - the
patient has to all appearance
entirely recovered and of
this time, nearly two years
after the operation there are
no signs of any return of
the disease - have [illegible]
the contracted [illegible]

Patient had to be carried
the remainder of the way
with and frequently had very

severe. Pain over
temporal lobes. Aged 20 yrs
Encephalitis extending
from right mastoid process
to occipital protuberance
noticed about a year before
without last two months has
gradually attained
by most excruciating pain
through temples and temporal
bones of head. Patient and
his friends anxious for me
to operate - [illegible]

[illegible] is so [illegible] that
she would forget to lie under
the stairs that to lie in the
agony - should to [illegible] -
[illegible] 1873 -
although to give [illegible]
clamoring signs of [illegible]
that it again - came effect -
[illegible] to buy [illegible] -
[illegible] - [illegible] until
I was satisfied that it
either was [illegible] [illegible]
produce death - explained
that it of [illegible] to [illegible]
the requests we to [illegible]
without any anaesthetic -
[illegible] so, [illegible] a large in-
[illegible] [illegible] [illegible] of

binding as previously stated
over the mastoid process
to the external occipital crest between
the occipital protuberance
and the Foramen Magnum
being situated so deeply
beneath the muscles and
other structures of the neck
and in the immediate neigh-
bourhood of many important
vessels - the operation was a
long and tedious one - and
it doubtful whether
he would live until Com-
pletion if - O found it ad-
hering closely to the base
of the skull through

which lasted - questions of
the bone adjacent away
inner half of mastoid
process eaten away - almost
particularly at close of duration
blood vessels greatly enlarged
and nothwithstanding the
fact that W injected very active
as quickly as it formed still
she lost a large amount of
blood - she rallied quickly
and for months at time
friends were convinced that
she was entirely free from
the disease - but at end of
that time a tumor appeared
projecting from right [illegible]

of Glaucoma - which is apparently to another form of the Glaucous process - it increased rapidly in eye - she became blind - then she became excited and died about four or five months afterwards

Case No 5. Mrs Ch. Chambers aged 55 years - been married twenty years ago - always have since been healthy - generally healthy - only two years before I saw her she began to complain and they were losing sight -

holulatich appearance - general health which had been greatly improved. Walking exercises in Lexia had just commenced when the year 1875. opened, and by first intimation, gave Dr. Ver Veer of Jalapa - 50 gas three times daily - was out attending to business in three weeks - convinced the Doctor of a remarkable - yet unknown gas Oxygen in form of Double Solution - is now quite healthy and has gained nearly pounds in the operation.

house No 7. Boy aged 10 years. Complained of [illegible] for a week. Had a sudden [illegible] with a month previously. Extracted 5th Feb 1878. General health [illegible] good. Gave Assurée. [illegible] confirmed. No [illegible] after extraction of the disease.

A Treatise on
Yellow Fever.
Respectfully Submitted by
J. H. Yount,

Yellow Fever.

This is a specific fever characterized by supra orbital pain, yellowness of the skin, and black vomit. It is a fever of warm climates; an average temperature of about 80° F. continued for several months is necessary for its production, a very high, as well as a low degree of heat will not produce it. It usually makes its appearance during the latter part of summer; or early in autumn. Frost puts a speedy termination to it. Its occurrence is confined within a certain geographical range. Almost all the places it has ever visited are upon the borders of the Atlantic, the Gulf of Mexico, and the Mediterranean sea; and upon the large streams emptying into these. It is unknown in the eastern shores of Africa, and on the Pacific coast. It is a disease of cities

In our own country it most frequently visits New Orleans, Mobile, and Charleston occasionly Norfolk, and Baltimore, and has even reached as far north as Boston. Miasmatic exhalations may cause it to take on symptoms analogous to those of bilious fever; while the effluvia generated by crowds may cause it to assume a typhoid form. The permanent residents of cities in which it is endemic are much less liable to contract it, than persons who have come from a salubrious climate. It seldom attacks Negroes.

Symptoms and Course

An attack of yellow fever usually comes on without any premonitions; but in some cases it is preceded several days by lassitude, anorexia, pain in the head, and chilly sensations. The attack is

declared by a chill after which febrile movement comes on which is usually moderate; frequently however it is of violent intensity. During the febrile movement the skin is hot, and dry; the [illegible] rapid, respiration accelerated, the face [illegible] flushed; the eyes suffused and injected, and the tongue is coated with a white fur. Occasionally the throat becomes so sore, as to render deglutition difficult. During the first part there is uneasiness of the stomach, and after the first day nausea, and vomiting supervene. There is a burning pain, and a feeling of [illegible]ion, and oppression in the stomach. Pressure over the region of the stomach causes severe pain. The stomach becomes so irritable that it rejects everything that is taken into it, often ejecting

its own morbid secretions, when undisturbed. The act of vomiting is often violent, and is attended with extreme distress owing to the irritability of the stomach. Generally there a desire for cold drinks, owing to gastric irritability. The bowels are likely to be constipated. Headache generally referred to the forehead, and eyes is often a prominent symptom. Frequently it is exceedingly violent. Dr. Ryn Porter, of Charleston, S.C. declares supraorbital pain, to be a never failing symptom. The countenance of the patient indicates extreme distress, and anxiety. The pains in the back and loins, which usher in the disease continue, and are often so severe, as to extort loud groans from the patient. The eyes become wild and fiery. The mind is usually disturbed,

and delirium is not uncommon. These febrile symptoms continue for a period varying from a few hours, to three or four days without any remission. The duration is longer in mild than in severe cases. Now a second stage of the disease sets in. It is an apparent remission, which is known as the state of calm; but it is a delusive calm. The first patient I ever saw suffering with yellow was in this state; which led me to believe that the horrors of the disease were much exaggerated. He was calm, and cheerful; answered questions asked him deliberately, and said he was getting well. He did not seem terrified by his frightful malady. The following day when I went into the hospital expecting to

see him, I found that he was dead. The skin becomes soft, and cool; the pulse natural, respiration easy, and the stomach quiet. In mild cases convalescence often dates from this remission; but most frequently the struggle between life and death is yet to come. The melioration is not considered comparable to the remission of miasmatic fevers. The disease actually continues unabated, and the febrile symptoms have only disappeared under the failing powers of the system. The continuance of the fever would be a favorable, rather than an unfavorable symptom as it would indicate a greater power of the system to withstand the disease. Tenderness on pressure over the epigastrium, yet remains and yellowness of the skin now [illegible] its

appearance begining first on the forehead and extending over the face, neck, and chest, and ultimately over the whole body. This apparent remission may last only a few hours, or it may continue a day. The third stage now sets in, which is known as the stage of collapse or of secondary fever as the case may be. In the stage of collapse the weakness is extreme. The pulse becomes quick, feeble, and irregular, the skin becomes of yellow or bronzed color; the blood becomes more stagnant in the capillaries, the fingers, toes, and dependent parts of the body become of a dark purplish color. The stomach now takes on increased irritability, and everything taken into it is speedily rejected. Soon a matter is vomited which contains

dark flakes diffused in a colorless fluid. The urine is high colored and scanty, occasionally it is almost or quite suppressed. Hemorrhage takes place from various parts of the body, especially from the nose, mouth and uterus and from the eyes. It is often vomited and sometimes passes by stool or urine and petechiae appear on the skin arising from the extravasation of blood. The patient now ejects the black vomit with considerable force. Sometimes there is a cheerful delirium at this stage and patients have been known sitting with each other who could eject the black vomit the farthest. The pulse at length almost ceases, respiration becomes slow, and sighing, the skin when feel is cold, and covering over large portions of

black matter is passed by the bowels, which is known as black vomit stools. Low delirium sets in; an extremely offensive odor issues from the body; the eyes become sunken, and death quietly ends the scene. Should secondary fever supervene after the remission, it may terminate in death or fatal exhaustion, or in a typhoid form which may continue several weeks with an uncertain result. The yellowness of the skin is due to inactivity of the liver. It affects the areolar and adipose tissues and may even affect the bones. The urine is usually tinged with it. The black vomit which is only one mode of expiration, takes place at the decline. It is not invariably present. It consists of blood changed by the acid secretions of the stomach. It may be mere

artificially by mixing acid with blood.
I had the opportunity of seeing black vomit, when in Charleston S.C. It was thin, of a blackish color and contained a dark sediment. Living animalcules are found in that which is vomited. The duration of the disease is about a week. Death may take place after two, or three days sickness; often however it does not occur before the tenth day. Morbid appearances
But this as in other fevers signs of inflammation, and congestion are found in various parts of the body. The lungs on occasion are engorged with blood. The bladder and kidneys are often congested. The liver is sometimes engorged with blood but most frequently it is dry, pale and anæmic. Fatty accumulation in the liver was in several

Congestion of the brain is quite common. The stomach and bowels usually contain black matter, with which they are sometimes distended. The mucous coat is reddened, and is often thickened, and softened. Extravasation of blood is frequently found in the various cavities of the body. Yellow fever has its seat in, and specific cause, where writers contend that yellow and remittents are identical; that both are generated by marsh miasmata; and they differ from each other in many striking particulars; yellow fever occurring only in cities near the sea within a certain geographical range; which is not true of billious fever. The contagiousness of yellow fever is a subject which has been much discussed, but it is now generally conceded that it was not spread by contagion. Freemen's crew to Tom at

in favor of its non-contagiousness is its confinement to cities within a certain geographical range; and even when prevailing in cities it is often confined to certain low districts. That in the beginning of epidemics many persons are attacked simultaneously, who could have had no communication with each other. That when it appears as an epidemic it spreads so slowly as to be diffused by contagion, and that persons who are attacked with it after they have fled from cities in which it was prevailing do not communicate the disease to others. The frost puts a speedy termination to it; were it diffused by contagion it would be more slowly. Most writers who have had a familiar acquaintance with the disease; do not think it to be in the least contagious. It is established

conclusively that the disease may be transported by means of fomites, and in the holds of ships. Some hold that the cause is a peculiar miasm arising from the decomposition of organic matter. There are two theories in regard to the manner in which the poison propagates the disease which we now notice. One is that the peculiar poison, generated under favorable conditions is capable of acting as a ferment when it finds a proper site, of assuming a nature like itself. The other supposes the cause to be a living organized being; either vegetable, or animal produced from living germs under favorable conditions. The ferment or germs may be transported in ships or clothing and if it has

a proper soil with the requisite temperature it may spread indefinitely. Whatever the special cause may be, it requires for its production; a continued high temperature of about 70° F. for several months with much moisture in the atmosphere, organic matter in a state of decomposition; vicinity to the sea, or some large stream emptying into it: yet it is remarkable that areas on the Pacific coast with all these requisites are never visited by this scourge. It frequently occurs after rainy seasons, floods, and overflows. The cause is most active near the ground; ~~are~~ is more active by night than by day. The reason for this is explained quite satisfactorily by our learned Professor W. C. A. Tilson. He says the poison emanating from the earth by day becomes heated by the

rays of the sun, and rises and is diffused throughout the atmosphere, but by night the earth becomes cool, and it no longer rises and accumulates near the ground. This also explains why persons living on ground floors are more liable to be attacked, than persons who occupy the upper stories.

Diagnosis It is difficult if not impossible to discriminate between this and other fevers, during its first stage. Its initial symptoms are those in common with other fevers. When the disease had advanced to its latter stages the diagnosis becomes quite easy. The peculiar yellowness of the skin, and conjunctiva, the injected, and glassy appearance of the eyes; hemorrhages, slowness of pulse, epigastric tenderness, diminished secretions, non

supra orbital pain black stools and black vomit point most convincingly to the disease. During its first stage it is likely to be confounded with bilious fever. During an epidemic of yellow fever in Charleston S.C. I saw two patients suffering with bilious fever, soon after they were attacked. They said that they had yellow fever, and this all the students reading behind, and the attending physician did not make a positive diagnosis at the time.

The Prognosis in yellow fever is as unfavorable as possible. The mortality varies from ten to eighty per cent. The average mortality is about forty three per cent. The prognosis is less favorable during the commencement than during

the close of an epidemic. Rigors, severe chills, the appearance of uremia, a diminution or suppression of urine, streaks of blood in the matter vomited, and high fever, occurring early in the disease are symptoms of grave import. Hemorrhages into the stomach, intestines, and bladder; as denoted by black vomit, black stools, and bloody urine; are most unfavorable prognostics, and are usually the immediate precursors of dissolution. Uraemic symptoms are fatal prognostics. The age, and race of the individual; most numerous in a salubrious climate; habits, and temperament, all have a bearing on the prognosis. A slow and regular pulse, a slight elevation of the temperature, of

the body; and an irritable state of the stomach during the first stage of the disease, are favorable symptoms. In no case can a happy termination be entertained, no matter how well the disease is progressing; as uræmia, hæmorrhages, and black vomit occur when they are least expected; and render fatal the prognosis. More hope is to be entertained from a gradual amendment of the more symptoms; than from a rapid disappearance of them as observation shows their sudden subsidence is very often speedily followed by a fatal termination.

Treatment. In many cases of yellow fever treatment avails nothing, as the patient receives his death blow at the beginning; in other cases, he

disease being very mild tends to recover, without any medication; however there are some cases of intermediate violence in which the chances between life and death are nearly equal and in these appropriate treatment will aid the powers of life in bringing about a happy termination. At the present day there is no known specific for the disease, and no known method of cutting it short. Many medicines have been reported as efficient in aborting the disease but clinical observation has failed to confirm the assertion. Bleeding, Tonnine, calomel, and opium have each had their advocates, but a fair trial of it has only proved their utter worthlessness, in cutting short or or lessening any counter effect on the disease;

yet they are of great use in facilitating the disease, and conducting it through its different stages to a safe termination. Emetics are generally condemned; nevertheless in the very beginning of the disease an emetic of ipecacuanha is indicated if the stomach be loaded. In cases where there is unusual intensity of febrile action, with a full tense pulse; blood-letting is called for, but it should be resorted to only early in the disease, and must not be carried too far, as it would increase the prostration during the latter stages. A mercurial cathartic is always indicated. The constipation of the bowels and the inactivity of the liver call for this remedy. It is asserted by many writers that if ptyalism can be produced the patient generally recovers, but it is a

extremely hard to produce it; that most physicians have abandoned the use of mercury with this view. The fever is relieved by nothing more effectually than the external application of cold. This may be effected by means of sponges dipped in cold water, or by affusion. Its use should be continued until the skin becomes cool, and the frequency of the pulse abates; or until the patient begins to feel chilly, when he should be wiped dry, and placed in bed. It should be repeated as often as the symptoms demand its use. Occasionally warm water is more agreeable to the patients than cold, and when it is, it should be employed. Refrigerant diaphoretics should be used during the first stage of which the effervescing draughts are the most suitable as they are useful both in dro-

moting diaphoresis, and in allaying the irritability of the stomach. For fever with heat, coolness, or leeches may be applied to the temples, or nape of the neck. A Dover's powder may be beneficially given if not contraindicated by cerebral symptoms. Iced water and ice itself should be given to the patient as they will be very useful in allaying the gastric irritation. The hair should be removed, and towels dipped in iced water, or bladders containing pounded ice should be applied to the head; while at the same time warm fomentations should be used as revulsives. The gastric irritability demands effervescing drinks, iced water, morphia in small doses, chloroform or creosote. Counter irritation over the stomach by means of sinapisms, poultices, mustard, leeches and

stimulating liniments often relieve the gastric distress. During the second stage depleting measures should be withheld, and means should be employed for counteracting the inflammation of the stomach, and supporting the patients strength. For counteracting the inflammation of the stomach the acetate of lead is the best agent that can be employed. Besides relieving inflammation, its astringent properties render it highly useful in limiting hemorrhage into the stomach. One grain may be given hourly until thirty grains are taken or until there is relief. A large blister should be applied over the stomach, and blisters to the extremities are valuable, in directing the nutriment to the surface. But above all care can should

be taken to support the system by mild nutriment. Broths, beef tea, farinaceous drinks and milk should be given to the patient at close intervals. Should the powers of the patient appear to be sinking tonics and stimulants should be administered immediately. The mineral acids, sulphate of quinine, oil of turpentine, wine, carbonate of ammonia, egg nog, and strong animal broths; are the prefer for supporting the vital powers. These should be given in combination with opium.
Oil of turpentine combined with laudanum is highly recommended. Hemorrhage into the stomach, and bowels should be treated with proper astringents. Acetate of lead, kino, tannic acid, and nitrate of silver; given combined with opium are most

frequently indicated. If prostration be extreme; stimulating fractions should be resorted to as they will [illegible] in some cases. Chlorate of potassa [illegible] has been [illegible] in [illegible], during the febrile stage. When the urine becomes scanty, and death from uremia is apprehended; diuretics, diaphoretics, and hydragogue cathartics; should be administered. The treatment taught by Prof. McSherry is to evacuate the bowels at the commencement of the attack with ten grains of calomel, and to continue its use in grain doses every four hours. When the skin is hot and dry he recommends the application of ice in bladders, and iced water by [illegible] rectum [illegible] for the distress. In [illegible] he advises the use of [illegible]

with suitable nourishment, [illegible] and ventilation, and perfect rest and quietude for the patient. By these measures he cured those persons who were attacked in this city, after fleeing from Norfolk during an epidemic and these were the only persons of a large number, that had fled to this city that survived. His success no doubt depended in part to his attending the patients assiduously, and gradually combating every symptom as they arose, and meeting all their wants precisely at the time when it was necessary.

A Thesis

Variola

M. Whitehill.

1876

Variola, or Small pox.

Perhaps an account of the growth, and loathsomeness of the disease, its contagiousness, the vicious appearance presented by the face, and the offensive odor arising from the patient during some part of its course, under it the most loathsome and repulsive diseases, that the Brooklyn has been visited with. The discovery of vaccination by Jenner towards the end of the eighteenth century, has diminished the importance which it had in the

two previous centuries; but still it seems to be the most dreaded of all diseases.

Anatomical Characters — Variola has no known anatomical characters distinct from those connected with the eruption on the Skin, and Mucous Membrane. Other morbid appearances are due to complications not peculiar to this disease.

Clinical History — Great differences pertaining to the eruption, and other events in the clinical history, in different cases, have induced writers to institute several varieties of the disease.

The premonitory stage, appearance of the vesicles or pustules take place.

Second: discrete in which the vesicles or pustules are separate or distinct from each other. Cases which partake to some extent of the nature of both, are said to be semi-confluent.

Stage of Invasion. The disease is generally preceded by a chill; more marked than the eruptive fever. Fever follows, generally accompanied by more or less perspiration. The latter is often accompanied with a rash, resembling the eruption, distinguishing it from the other eruptive fevers. This is called the primary fever. The temperature of the body is often raised 10 or 11°

The throat inflamed & sore. Nausea & vomiting are apt to come. The tongue becomes coated. The epigastrium is some painful & is tender on pressure. Bowels generally constipated. Cephalalgia. Pain in the loins & limbs. The latter often marked & persistent diagnostic importance. Delirium is occasionally symptom. The stage lasts about five days. The eruption begins on 3rd day with some exaltation. The eruption appears on the 2nd day, & may be expected to be confluent. And in proportion as the eruption is protracted in its appearance beyond 3rd day, mildness of the disease is to be expected.

Stage of Eruption. The eruption generally appears first about the lips and nose, and nearly at the same time on the neck & breast, then on the body and last on the extremities. Coming in in diffusion about from one to three days. At first it appears in the form of small red spots or specks. It is now a macular eruption. The central part of the macular becomes nodular and pointed, thus becoming a papular. By the end of the eruption a piece of the papular becomes elevated by a drop of liquid. The papular now becomes a vesicular. This change occupying about seven years

days from first appearance of eruption.
On the fifth day of the eruption the vesicles
have acquired nearly their full development, measuring from 1/8 to 1/4 inch in diameter,
and are raised about 1/16 of an inch above
the level of the skin. Some of the vesicles are
depressed in the centre, are umbilicated, and have
been lobulated. This is observed in modified varioloid
smallpox. The vesicles are multilocular, containing several cells, filled with a opalescent
serum. I have thus given the history of the
eruption up to the period when the vesicles
reach their full development, if the eruption
be discrete. In the confluent form the vesicles have not the determinate form of those

in the discrete variety, but run together and coalesce to a greater or less extent: but at the end of the full development of the vesicles, the face and other parts are covered with patches in which the cuticle is uniformly raised, resembling a blister. After the full development of the vesicles, another important change takes place, in which the vesicles become pustules or suppurating tubercles. The central depression of the vesicles is lost, and the cells become broken up. Simultaneously with the appearance of the eruption in the cutaneous surface, it may be observed on the mucous surface, especially on the tongue

and soft palate, in the form of round opaque spots caused by a deposit of lymph. They are also liable to come in the conjunctiva, and may lead to ulceration of the cornea and destruction of the eye. A. Ave Kang, and highly characteristic feature of smallpox is the occasional or notable omission of pus on the abscess of the eruption. The pulse, and the heat of the skin, are both little above that of health. In confluent varioloid the features are less marked. The fever gradually declined as the eruption progresses.

Stage of suppuration. The commencement of this stage, about the sixth day of the eruption, is followed by a metallic-red

of fever, constituting the secondary or suppurative fever. The pulse is accelerated, and the temperature is increased especially in the evening. The perspiration ceases. The fever continues from one to two days in mild cases, longer in the confluent variety. The fever and symptoms of the affection of the skin, are in some measure proportionate to the cutaneous inflammation. Tumefaction of the face occurs and is often considerable. Swelling of the hands and feet also takes place. The swelling of the face and extremities, although the natural history of the disease is favorable, denotes danger. Salivation is apt to occur, depending on the exciting cause

the fauces. Various ataxic symptoms are apt to occur as delirium, subsultus, carphologia and coma vigil, denoting great danger. The duration of the stage of eruption is about four or five days.

Stage of Desiccation — This commences about the fourth day of the disease. The inflammation and redness of the skin diminish. The pustules burst and the pus concretes into a thick scab. In the confluent variety in severe cases, the whole face is covered as if by a mask. And a great part of the body and limbs present a similar aspect, and it is not a rare and dangerous characteristic of the disease. In mild cases this is the stage of convalescence. The

scabs fall off, leaving the skin un-
broken, but presenting a discoloration
which continues a long time. In some
mild cases no trace of the eruption is left,
but in the majority of cases linear vesi-
cles are left, which are known as pit-
ting or "pock marks". The duration of
the stage is from six to nine days. The
swelling the duration of the disease ending
in recovery from seven to twenty four
days. Various complications are liable to
occur in the course of the disease, the most
of them being dependent upon the eruption
in the various mucous passages, and are
denoted by the same symptoms which are

enlarge them, and rapidly become malignant.
Hemorrhage in various situations also occurs in a certain proportion of cases.
Albuminuria is not infrequent concurrent in severe cases.

Causation. Small pox is a highly contagious disease. It may be communicated by means of a virus, that is by inoculation, and by a miasm emanating from the body. The former is regarded as its contagion par excellence. It is readily transported by means of fomites, which may retain the virus for months and even years. A convalescent person often suffers for the production of

the disease. It is not unfrequently contracted by passing in the street in a public conveyance, persons who either are, or recently have been affected with the disease. The disease is generally supposed to be communicable in all its stages; but is undoubted by most so, during the stage of suppuration and desiccation. The duration of the stage of incubation is about twelve or fourteen days.

Diagnosis. The diagnosis of Small pox, is not difficult after the eruption is fully manifested. Before the vesicles are distinct in the early period of the

stage of eruption it is not so easy to determine the character of the eruption. Vesicles should be looked for, and the umbilicated appearance which is almost pathognomonic. The distinctive character of the papules as determined by the touch, are also to be borne in mind; being granular, hard and deep seated, feeling like shot under the skin. The presence of lumbar pain and vomiting, and especially the cessation or remission of febrile movement at the time of the appearance of the eruption are important diagnostic features. The round white or easily exfoliating spots are generally apparent as soon as, or even before the erup

mous eruption, and should be taken into account. The diagnosis cannot be made with positiveness prior to the stage of eruption. Again in the form with fatal movement, taken in connection with the absence of symptoms which characterize the access of fever & rubbing fever, should excite strong suspicion of small pox, & specially if the patient be not protected by vaccination, or by a previous had the disease. When the eruption first appears the differential diagnosis has to be made between Scarlatina & rubeola & between scharlatina membranous or passage and in scarlatina, the fever is

prominently affected. In subdata the stage of invasion is longer, and in scarlatina shorter than in variola, and in measles does the febrile movement increase behind the Eustachian bar.

The diagnosis should be made as early as possible, to prevent the diffusion of the disease before its character is ascertained.

Prognosis. Unmodified small pox is attended with much danger to life. The rate of fatal cases varies as one to three or four. The most fatal epidemic on record was that of Hanover, the discrete form. It is especially fatal in early life, and old age. Death

is sometimes due to the intensity of the disease per se, and sometimes to the various complications which are liable to occur.

Treatment.— The treatment of small pox embraces both local and general measures. The general treatment is the same, as in the other exanthematous fevers. The disease will run its course, and hence the expectant plan is to be pursued. Fever may be lowered during the stages of invasion, by cold drinks, as ice water, lemonade, carbonated water, and sponging the surface of the body with cold or tepid water. Constipation should be removed by mild laxatives, or simple

Enemas. (a) Remedies to relieve nausea & vomiting, and cephalalgia, are frequently in demand in this stage. The sulphites have been recommended in this, as in the other essential fevers, as sulphite of sodium in from 20 to 30 grs. dose every third or fourth hour. During the stage of eruption before suppuration, palliative measures are indicated, for nausea and vomiting, restlessness, diarrhoea, &c. The mineral acids are also useful in this as in other fevers. Stimulation and supporting measures are important in this stage, also in the stage of suppuration. Alcoholic stimulants, and tonic remedies, with concentrated nourishment.

are indicated as in the other essential forms. All hygienic measures should be strictly attended to. The local measures, embrace means to render the eruption abortive on the face, or to prevent pitting. The treatment for this end, is called abortive.

Various measures have been tried for this end, among which are the following:—

The careful evacuation of the vesicles and cauterization with a stick of nitrate of silver. The application of the tincture of iodine, once or twice daily, while the eruption is papular. The exclusion of light and air, as by covering the face with a plaster of some kind. The

application of poultices continued, such as the linseed meal poultice. Collodion applied by means of a brush, over a large surface. All are more or less highly recommended. Evaporating lotions to abate heat. Antiseptics, and absorbent powders during the suppurative stage are indicated. Compresses wet with cold water should be applied to the eye, to prevent the eruption in the conjunctiva. To prevent diffusion patients should be isolated from others, and have gone through an ablution before going abroad. All articles of clothing should be burned. Fumigations as a means of destroying the poison, should not be relied on.

Dissertation No. 116

An

Inaugural Dissertation.

On

Irritation.

Submitted to the examination of the

Provost, Regents, & Faculty of Physic,

of the

University of Maryland,

for the

Degree of Doctor of medicine.

by

L. L. W. Tall

Gentlemen

As it is a requirement, that each candidate for graduation, shall present to you a Thesis of his own composition, written upon some medical subject, I shall endeavor to fulfil such requirments by writing what I know of Irritation.

You all know well that it is not probable any of us will present new ideas in our Thesis, for I will assure you, that what I am about to present to you now, has been gathered from my knowledge of your instructive lectures, and from my text-books. Hoping this inferior Thesis may meet your approval.

I remain Respt.

R. L. N. Dall

Irritation being the foundation of all surgery, we should carefully study and understand it, before we can undertake to practice that science creditably to ourselves or with benefit to our patients. The Doctrine of irritation shows the effects of injuries, the way that nature manifests them on the one hand, and on the other the means by which apparently slight accidents are often fatal. In a healthy state, all the actions of the body are sustained by stimulants, as the blood to the vessels, is heat in some means to the

whole system, and the bile to the intestines, and there exist between all parts of the body intimate relations corresponding to each other carrying on intimate and reciprocal intercourse of action, this is called sympathy, the real nature of which is unknown, but many of its effects are made evident to us, as in sneezing, which is a sympathetic action between the nose and velum palati, and abdominal muscles, But sympathetic effects also exist in injuries or diseases and become the cause of

restoration on the one hand, and of destruction on the other, and this state is called irritation. Irritation may be defined to be an altered action excited in the body by an unnatural impression. Irritation of sensation, Irritation sometimes produces only diseased sensation, as when pain is experienced in the knee often due to a disease of the hip, when a person has a stone in the bladder pain is felt in the extremity of the penis, when a calculi is passing

through the ureter pain is felt in the thigh, and the testicles are retracted. Disease of the uterus occasions pain in the loins around the hips and sometimes weakness of the inferior extremities, nearly amounting to paralysis, Pain and heat in the throat arises from a morbid state of the pylorus. Pain between the shoulders from affections of the Liver, and pain in the loins from inflammation of the testicles, and violent palpitation of the heart ~~area~~ are sometimes produced by a morbid state of the

stomach, sometimes the sympathetic affection, is left even after the other primary cause are relieved and we are obliged to use medicines to relieve this affection.
But irritation not only, cause diseased sensations, but, morbid actions excited in other parts, which are ~~nearly~~ intimately connected or in other parts more distant. Thus inflammation is produced in the testicles from inflammation or rather irritation simply in the urethra. The diaphragm is sometimes

thrown in violent action from gangrene of the most remote parts. The stomach seems to sympathize most readily with irritations of other organs. Vomiting is produced when the testicles are injured, when the intestines are wounded or strangulated from a stone passing the biliary ducts. In general irritation is communicated through the medium of the nerves, of which; there are two systems in the human body. The brain spinal marrow and their nerves are the first which

naturally convey sensation and volition. The second consisting of the grand sympathetic, the centre of which is behind the stomach in the semilunar ganglion and solar plexus. The modes of the sympathetic communication are various. In some instances, the course of irritation is from the irritated part to the sensient extremities of the nerves, as in pain experienced in the knee or foot in disease of the hip, lesions of the brain produced vomiting. Their influence being carried to the stomach

through the Eight pair of nerves.
In other cases the pain is
from the affected extremity
to the origin of the nerve,
occasionally the sympathetic
communication is through the
brain, as in the following case,
"A person suffering severely from a
a decayed tooth was also affected
with Hemiplegia; the tooth was
extracted, when the pain and par-
alytic affection entirely subsided."
Irritation of the nerve of
the great sympathetic is com
municated to the stomach,
probably, through the medium
of the semilunar ganglion;

and vomiting is directly produced also in strangulated hernia, also when the biliary or urinary calculi respectively, are passing their ducts; The other system of nerves as the brain, spinal marrow, &c. are less affected when the injuries are fatal, the patient appears quite collected until nearly to the last moment, Irritation is either local or general, sometimes it is local only. thus a decayed tooth will sometimes produce an ab-scess and the matter escapes by forming an

opening through the cheek.
In these cases the abscess
in general will be cured
by the removal of the cause.
General irritation may
be illustrated by the
following instance a man
may have a bougie intro-
duced for the first time,
the urethra is irritated by
it, he complains of a feel-
ing of faintness becomes
sick looks pale, and if we
are not careful he drops
at our feet; his pulse
has nearly ceased and
he is covered with

a cold perspiration, we place him on a sofa with his head a little lower than his body. and so soon as circulation in the brain is restored, all his natural functions are restored. Thus by irritating the urethra the stomach is affected, The action of the heart is suspended and the powers of mind banish. Fever is excited by irritation and a paralytic state of some part of the body is not an unusual consequence, a child sometimes loses

the use of one arm, or one leg, or sometimes of both legs in this case by determination of blood to the head, a slight injury of the stomach, although it does not produce any sensible organic change will sometimes destroy life.
A man recovering from a fever quarreled with his wife and he received a blow ~~upon the~~ upon the region of his stomach causing almost ~~an~~ instantaneous death, no morbid change could be discovered after death,

by dissection usual symptoms of general irritation, but exemplified in compound fracture; a person received an injury in one of his legs, occasioning a compound fracture of one or both bones, consequently irritation soon commenced, he first complain of uneasy sensation in the loins as if from an uneasy position; this extends to the back in the cause of the spinal marrow to the brain, causing pain in the head, he was restless his countenance,

expressed anxiety, the tongue at first was covered with whitish fur, but as irritation increased it becomes yellow, and in an aggravated state it has a dark brown coating, loss of appetite, nausea, and vomiting, with gastric derangement, stools white from diminished secretion of the liver, and sometimes a fluid is produced which differs from bile in appearance, the secretion of the intestines are vitiated and diminished, the urine scanty and high colored.

The skin is hot and dry, and a diminution of secretion with these symptoms. The pulse quickens, becomes hard, irregular and intermittant, corresponding alteration takes place in respiration, it being at first much quickened and finally hurrid and laborious the functions of the brain and spinal marrow becomes further changed, the slightest impression becomes almost intolerable, without tendinum is produced, and finally the patient sinks

into a low muttering delirium. The grand sympathetic becomes further affected, the abdomen becomes distended by flatus accumulated in the intestines, vomiting, and purging, both comes on, also fever, and at last the patient weare out by irritation and expires. This is constitutional irritation and it appears to be produced in the following way, when any part of the body is injured, the nerves conveys a knowledge of it

to the important organs, as the brain, spinal marrow, heart and stomach immediately sets about resisting, it by stopping all the secretions, thus the various outlets of the body being closed. The blood is thrown back in large quantities on the heart and large vessels, which propel it with great force to the injured part, thus giving rise to inflammation in what form can best accomplish the part effected. This illustrate the way in

which nature contends for a cure, her efforts sometimes require to be checked and sometimes aided and we must be cautious, however, how we interfere. The danger of constitutional irritation resulting from injuries dependent ~~on. ~~ on the importance of the parts injured, a blow on the abdomen by which one of the intestines are wounded, renders the pulse scarcely perceptible at the wrist; covers the body with a cold perspiration and causes, death in twelve or fourteen hours

2nd. The extent of injury. Thus in important organs to the extent of the injury as a corresponding comparision to simple fracture. 3rd The nature of an injury as in wounds, if a wound be a simple incision it early heals, but when a contused wound the parts must slough an the injury can be cured. Punctured wounds also by their influence on the nervous system, frequently produces tetanus. 4th The difficulty of restoration of an injured

part as wounds of ligaments, tendons, fascia, or cartilage, and parts possessing, but little vital powers, as in wounds, and diseases of the joints. 5th The state of the constitution at the time the injury is received, this varies at different periods of life; and is modified by the patient mode of living, and climate, in which he lives. Excessive irritation sometimes follows operation on young persons, but hardly those who are advanced in years, & have read of children

after having undergone at a very early age, an operation for Lithotomy, to die of convulsions: In infancy the irritibility is excessive; and the system early excited to distruction, after two years the irritability is considerable, but the power of restoration great; in middle age, the irritability is less and the restorative powers still considerable, in the aged, the irritability is much diminished; but the restoration is less also vicissitudes of rest and

diet predisposes to irritation, the temperate man suffers but little from an injury, that would produce the most distressing symptoms in an intemperate man. Persons who are addicted to stimulants, in large quantities have the natural powers so weakened, that they are not sufficient to restore them from injury, a portion of their usual stimulant is required to produce a proper action, for repairing the injured part. In two cases, after

amputation, a high degree of constitutional irritation was induced and with sloughing of the stump, and it could only be allay-ed by allowing a small portion of this accustomed stimuli.
In opposition to this a case may be related of a woman servant, crossing the street; fell upon the car track. The car having passed over her arm just below the elbow, producing a compound fracture of both

bones, just below the elbow, the integuments were much lacerated, and an extensive wound communicated with the joint, and the patient refused to submit to an amputation, and the limb was dressed by a Surgeon, who was surprised to witness the speedy recovery of the woman without any bad symptoms. Thus an injury, which in one person will produce little constitution effect would on another occasion produce

most violent and distressing effects, and the same may be said of the same person at different periods of life, or at any time, his constitution is in a different state, it is on account of the constitution being in an irritable state from long continuance in a dissecting department; that wounds there received, generally produce such distressing constitutional effects.

Treatment of Irritation, in the Treatment of Irritation we have three chief indications; 1st to remove the exciting cause, 2nd

to correct the secretions, and 3rd. to palliate the disease; to meet the first indication is not always an easy task. the cause at times is quite apparent, and again; it is utterly impossible for us to find it out, Should the cause be apparent, the proper course is to remove the cause, a splinter of wood, a Ball, a decayed tooth, are promptly extracted, Indigesti-ble Substance from the Stomach by Emetics, Worms from the bowels, by Anthelmintics; an abscess lanced, Should the cause not be evident, we should examine the different secretions,

and restore them to as healthy condition as possible, in correct-ing the secretions; it will depend, altogether on what organ or organs are effected, the Stomach, Bowels, Uterus, &c; should receive our attentions; purgative medi-cines, are those chiefly indicated. Irritation of the spine, by reflex action, often produces distressing symptoms, here counter irritation should be employed - the last indication to relieve or cure the disease, here every case should be treated according to its own peculiar treatment.

Prepared by a Student in the Physiology of Human Digestion in Maryland Med. Coll.

Presented and read before the Medical Society of the University of Maryland School of Medicine

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Digestion is that process by which food, when taken into the alimentary canal, is prepared for assimilation into the tissues of the body.

It is the chief of the vegetative functions concerned in sustaining life.

The process of digestion is one of less complexity than that of respiration, and notwithstanding this complexity,

all the organs in the body so intimately, that we experience no inconvenience and it is only in consequence of the repeated violations of the natural laws, that we suffer from the pangs of indigestion and its attendant evils.

"No sooner," says Lewes "do we become acquainted with this complexity, than our surprise is not that many of us, imprudent and careless as we are, should suffer from disorganizations of that system, but that any of us should escape, and that success should last so long."

In every living organism there is an unceasing waste of tissue. We cannot move a limb, nor think a thought without this consequent destruction, and we must

that the various organs may not lose their functional activity, there must be a corresponding repair.

Not only is it necessary that the wear and tear of tissue be compensated for, but at the same time, a vital heat must be kept at its proper standard. To accomplish these purposes, the food should contain all the elements of which the various tissues are composed.

Food may be classified under the following heads; 1. The aqueous; 2. The saccharine; 3. The oily or oleaginous. 4. The albuminous; 5. The saline.

Milk is the only article of animal food which is [illegible] [illegible] [illegible]

is therefore considered as nature's perfect type of food.

We will now consider the different acts of digestion, and also the various organs and fluids by which it is performed.

"We cannot consider," says Paley, "but with gratitude how happy it is that our vital motions are involuntary." If these movements depended upon our bidding, our time would be so completely occupied, there would be no time for business or pleasure. We should be perpetually [illegible] its hundred [illegible] per [illegible] [illegible] [illegible]

[illegible] view these wondrous workings, and many of us, as [illegible] know nothing of the [illegible] which our existence depends.

The acts of digestion may be classified as follows: 1. [illegible] 2. [illegible] 3. [illegible] Deglutition [illegible] 6. [illegible] 7. [illegible] fication; 7. [illegible].

[illegible] animals, according to their various habits. In some, as the graf[illegible] [illegible] [illegible] [illegible]

[illegible]

In birds of prey the bill is the organ of prehension, and is especially adapted to seizing and tearing to pieces their prey.

In [illegible] the lower [illegible] in [illegible] the [illegible] is a [illegible] the [illegible], [illegible] and [illegible] the tongue.

In birds [illegible] [illegible] one.

Mastication is [illegible] in the process of digestion. Its object is to reduce the food to such a [illegible] that it may [illegible] the digestive fluids. It is [illegible] the [illegible] to.

The molars, by their broad bases, form an admirable means for disintegrating the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] tant act. It has been said that "food well chewed is half digested."

If the [illegible] [illegible] [illegible] [illegible] an extra [illegible] [illegible] [illegible] of the stomach, which [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

Mucous [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] fact that they, [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

The saliva acts both mechanically and chemically.

The secretion from the parotid and sub lingual glands, is a limpid, colorless, and alkaline fluid, which saturates the food, and that from the submaxillary, on account of its viscidity, facilitates its passage into the pharynx.

It chemically acts upon amylaceous or starchy substances, converting them first into dextrine, and then into sugar.

The combined secretion of the salivary glands is a colorless, inodorous, and tasteless fluid, has a decidedly alkaline reaction, which is due to the basic phosphate of soda. During, and immediately after meals, its alkalinity is

greatest. Its active principle is ptyalin which closely resembles casein and albumen. It contains also sulpho-cyanide of potassium. It has been estimated that about forty eight ounces of saliva are secreted daily by an adult, but this amount is only approximative.

Its secretion may be promoted by acid or aromatic substances, and also by food. The use of soft and insipid substances, cause a scanty secretion.

Any movement of the lower jaw, even the sight of food, will serve to cause it to flow freely, as the sides which bring the water into the mouth.

The saliva flows most freely from the parotid gland on the side of

active during mastication.

Deglutition is the act by which the food is transferred from the mouth into the stomach.

It is first thrown back into the pharynx by the tongue. The passage into the nostrils is then closed by a small pendulous curtain, dividing the pharynx into two cavities.

The food is now grasped by the constrictor muscles of the pharynx and conveyed into the oesophagus, thence by the peristaltic action of the oesophagus as well as into the stomach.

The pharynx is a muscular sac, open and closed in several ways, and [illegible] from the back of the nose [illegible]

the occipital bone to the oesophagus.
It is lined by a mucous membrane.
There are seven openings connected
with it; the posterior nares, and Eustachian
tubes, above; the larynx and oesophagus
below; the [illegible]

The oesophagus is a muscular canal,
extending from the fifth cervical ver-
tebra to the stomach. It is the continua-
tion of the pharynx, and is [illegible]
inches in length. It is lined by a mucous
membrane. The fibres of the muscular coat
are arranged in a longitudinal and a
circular manner.
The arrangement of these fibres causes it
to exercise the peristaltic action, by means
of which, the food is carried into the stomach

The larynx though not concerned in the process of digestion, through its proximity to the digestive tract, is worthy to be mentioned in this connection.
It stands in front of the oesophagus, and at the head of the windpipe.
The orifice is guarded by the epiglottis, a leaflet cartilage. This is a position erect to allow of the passage of air into the lungs. But during the act of deglutition, it is by the perfect closure of the glottis by this little cartilage that foreign substances are prevented from entering the windpipe.
Now we view this wonderful mechanism, and reflect upon the precision of the acts of breathing and swallowing, when

any accident occurring we can not but exclaim with the poet,

"How complicate how wonderful is man"!

Digestion is performed in the stomach. It is the action of the gastric juice.

The human stomach is an elastic organ shaped somewhat like a bagpipe.

It has a greater and a lesser curvature, and two orifices. The cardiac orifice, is that through which the oesophagus enters the pyloric, is the channel to the duodenum.

The stomach has four coats; viz; an external or peritoneal, a muscular, a submucous and a mucous.

The peritoneal coat surrounds the organ and retains it in position, and at the same time, permits the free movements

The fibres of the muscular coat are arranged in a longitudinal, circular and oblique direction.

The alternate relaxation and contraction of these fibres gives to the stomach the peculiar churning motion which Beaumont has described.

This motion agitates and disintegrates the mass and brings all parts of it in contact with the gastric juice.

When the stomach is empty the mucous membrane lies in numerous irregular folds. If this membrane be washed so as to remove all mucous from its surface, numerous pits or depressions may be seen with the naked eye, and by the aid of a lens. These pores lead

-sion may be seen the orifices of the gastric tubes, known as the gastric tubes or pits. These are peculiar to the stomach, are supposed to secrete secretions, occur at the bottom of the pits. other parts are numerous secreting cells, which secrete the organic ferments principle of the gastric juice known as pepsine.

When the food enters the stomach, the mucous membrane changes from a pale pink, to a bright rose color, and the gastric juice may be seen to flow freely from its walls.

The gastric juice is a faint amber colored fluid of a decided acid reaction. Its acidity is supposed to be due to both hydrochloric and lactic

acid. The amount secreted is [illegible] variously stated, and is dependent upon various circumstances and conditions. In average daily quantity is about [illegible] fluid ounces. It secretion may be retarded by [illegible] and a febrile condition of the system.

It has a special action upon albuminoid substances, converting them into albumose or peptones, which, in this condition, are absorbed by the capillaries of the stomach and [illegible] to form the radicles of the portal vein. This acid is not sufficient in quantity to digest all the albuminoid substances, but those [illegible] are converted into peptones, by the pa[illegible]

and other juices. Albumose differs from albumen, in that it is not coagulable by heat. It also interferes with "Trommer's" test for sugar.

The solvent action of the gastric juice was first demonstrated by "Kaumer", in his experiments upon dogs, by introducing into the stomach, hollow silver balls, perforated in several places, and filled with meat. When they were withdrawn the meat was found to be completely digested.

The reason the gastric juice does not digest the coats of the stomach, is supposed to be owing to the epithelial covering of the mucous membrane. This epithelial covering is reproduced as fast as it is

delay'd. If it were removed the cost would be readily acted upon.

The temperature of the gastric juice, according to Beaumont is about 100°F. Bidder and Schmidt assert that freezing does not interfere with its action, when otherwise, but if the temperature be lower than 100°F, digestion can not properly be performed until the natural temperature is restored.

The time for the complete digestion of a meal, is from two to four hours, but this of course is dependent upon the nature of the food.

The stomach is a very dilatable organ. It consists [illegible] for [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

and about four or five inches, in its vertical. It contains about five pints.

The course which the food takes after entering the stomach, has been variously described by different authors, but Beaumont professes to have seen the [illegible] Alexis St Martin [illegible] we will use his language in describing them. The food, soon after entering the stomach at the cardiac end turns to the left, descends into the spl[illegible] and follows the great curvature towards the pylorus. At the [illegible] the [illegible] of the [illegible] and makes its appearance at the cardiac aperture, in [illegible]

[illegible] the great curvature by peristaltic revolutions. These revolutions are [illegible] in from [illegible] to three minutes.

Chylification is the conversion of chyme into chyle. This is accomplished in the intestinal canal, by the action of the bile, pancreatic and intestinal juices.

The intestinal canal is about twenty or thirty feet in length, and sixteen times the length of the [illegible].

It is composed of the small and large intestines, and is lined throughout with four coats corresponding with those of the stomach, with the exception of the muscular coat, and in particular

Of the mucous membrane.

The fibres of the muscular coat are arranged in a longitudinal and circular manner. The alternate relaxation and contraction of these fibres, produce a vermicular or peristaltic motion which carries the contents of the intestinal tract downward.

The small intestine is divided into three parts, viz., duodenum, jejunum and ileum. Its mucous membrane presents a very beautiful velvety appearance, owing to the numerous villi covering its surface. It also has numerous foldings of the mucous membrane, called valvulæ conniventes which afford a great extent of surface for

[illegible] be passed, but [illegible] may
be taken up by the absorbents.
In the walls of the [illegible] are a number of [illegible] bodies,
Solitary, P[illegible] and the follicles of
Brunner. The first are found in the first part of the intestine or duodenum; the second [illegible] the last
intestine; the third are [illegible] in the ileum. The follicles of Lieberkühn are found in a [illegible] intestine. The exact function of these [illegible] is not known.
The patches of P[illegible] become [illegible] in the process of [illegible] and are [illegible] at the [illegible] phases. Some [illegible] of the [illegible]

odor of the fæces may be due to the [illegible]
secretion.

The bile is the [illegible] of the fluids with which the [illegible] [illegible] [illegible] [illegible].
It is of a yellowish brown color, and is faintly alkaline [illegible]. It contains two salts; the glycocholate and the taurocholate of soda. Bilirubine is its coloring principle.

Bile is secreted by the liver, and is emptied into the duodenum, through the ductus communis choledochus, in company with the pancreatic juice. The function of the bile is not definitely known. It is supposed to act as a solvent of fats, and to promote their absorption.

It is necessary to health and life, that the bile pass through the alimentary canal. If it be carried into the stomach it impedes digestion. It prevents putrefaction. Flatulent dyspepsia is the result of a feeble secretion of bile. As there is very little bile excreted it probably undergoes some change in the intestinal canal, and is reabsorbed. If the bile is allowed to accumulate in the blood, jaundice results. There are about three pounds secreted daily.

The pancreatic juice is a clear colorless and somewhat viscid fluid of an alkaline reaction. It has an special action upon fats converting them

into an emulsion, and are thus ab-
-sorbed. Probably the albuminoid substan-
ces which have not been acted upon
by the gastric juice, are changed into
peptones by this fluid. It also acts
upon starchy matters, converting
them into sugar. Pancreatic juice is
active principle.

The intestinal juice is the last of
the digestive fluids. It is secreted
by the various glands of the small
intestine. It is a colorless, ropy, and
viscid fluid of an alkaline reaction.
Very little is known about this fluid.
It acts upon starchy substances converting
them into sugar.

Defecation is the last stage of the

digestive process. It is to this portion that all unassimilated substances are expelled from the alimentary canal.
The large intestine like the small is divided into three parts viz, the caecum colon and rectum.
At the termination of the small intestine and commencement of the large is a valve like arrangement, known as the ileo-caecal valve which permits the contents of the small intestine to pass downward, but will not permit regurgitation.
The contents of the large intestine are known as the faeces. The peculiar offensive smelling odor supposed to be caused by the secretion of the

glands of Dr. Tait [illegible] changes according to the nature of the food. On a mixed diet they have a yellowish-brown color; on a flesh diet, much darker; on a milk diet, a yellowish hue.

Absorption. It [illegible] the various changes that the food has undergone in the alimentary canal. All the nutritive elements are now to be taken up by the absorbents, preparatory to their assimilation to the blood.

The absorption of the [illegible] is accomplished by the bloodvessels and lacteals. The [illegible] are the active agents in this and [illegible] in large numbers throughout the intestine. Each villus is [illegible]

as above, but set of capillaries.
The use of product of digestion taken up by the blood vessels, passing first through the liver before entering the general circulation.
The lacteals have their origin in the villi. They are a part of the great lymphatic system. They were discovered by Asellius in the year 1622. They were after the great discovery of the circulation of the blood by Harvey. They were also unperceived by the discoverer, owing to their white appearance he supposed them to be nerves, but upon pricking them with his scalpel, a white milky fluid issued from them, much resembling

chyle. It is only after a meal containing fatty ingredients that these vessels contain chyle. When digestion is not going on they contain simply lymph. Asellius believed that the chyle was absorbed by the lacteals, passed directly to the liver; but in 1622 Pecquet discovered the receptaculum chyli, into which the chyle is poured, after having passed through the mesenteric glands.

From the receptaculum chyli it is conducted by the thoracic duct to the left subclavian vein at its junction with the internal jugular. It is then poured into the circulating current of venous blood and carried through the right cavities of the heart and

the lungs [illegible] aggregate
and converted into arterial blood
In passing through the pulmonary
circulation the fats undergo some
change, not exactly understood.
[illegible] distinguishing characteristics are lost. They cannot [illegible]
be recognized by the usual tests.
The object of digestion [illegible]
have been attained [illegible] assimilation has been [illegible]
It is by this important process
that the blood system is [illegible]
nourished.
All the details of [illegible]
[illegible] the blood and
the circulation [illegible]

out the organism that the various sys-
tems receive their supply of nutrient
material, thus, enabling the organs
composing those systems to perform
their functions perfectly.
It is impossible to say where and
how as [illegible] takes place, and
why the blood should give up so
of its material to the integument,
[illegible] hair, nails, muscles
[illegible] supply [illegible] dyspepsia [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
done. To attempt to explain this process
is useless. It is one of the unfathom-
able mysteries [illegible] the human
intellect can not fathom. It is the
work of the wise Creator whose ways are pa-

finding out.

The organs of digestion receive their nerves with [illegible] from the pneumo-gastric and sympathetic nerves. A communication of one part of the system with another is formed through the sympathetic. It is by this nerve that one organ takes cognizance of the condition of other organs.

So intimately is the nervous system connected with digestion, that we can readily see how the emotions as fear, anger, &c. can impair the function.

[illegible]

[illegible]

A Thesis

Subject, Fractures

Henry Troy Knell.

1876

Fracture

The term fracture is used to denote a solution of bone continuity, distinct from dislocations, as this is a solution of bone contiguity. — The term fracture I use in regard to bone, although we may have a fracture of cartilage, and by some [illegible] the bones. This I think is [illegible] and should be placed under the head of "ruptures".

Fractures generally speaking are divided into two great classes, viz Complete and Incomplete

A complete fracture is when the fracture runs entirely through the bone, or when there is an entire solution of bone continuity—
Incomplete is when the bone is not entirely broken; it is partially broken and this part. This variety of fracture occurs principally in the young and is called "green stick fracture"
Fractures are again subdivided into several clases, "Viz": Simple, Compound, Comminuted, Complicated, and Impacted. — Simple fracture is when the bone is broken, and there is not much injury done to the soft parts. — Compound fracture is when in addition to the [illegible]

bone, there is a [illegible] communicating from the bone to the atmosphere. Complicated fracture is where there is something to accompany the fracture of bone, as the laceration of an artery. Comminuted is when the bone is broken into several pieces.

Impacted is when the [illegible] is driven into or forced into [illegible].

As regards the direction of a fracture in relation to the bone, these are various. I shall strive to give a detail of the most important.

Transverse — This [illegible] most often occurs in children. It is when the bone is as it were snapped off or broken straight away.

Oblique. This is the typical fracture in the adult. This variety of fracture usually runs a considerable length of the bone. It is more dangerous than the transverse. Owing to the obliquity of the fracture it gives a sharp and [illegible] fragment, [illegible]

Serated - is where the bone is broken directly across and the edges are rough, irregular, and denteled

In accordance to the direction of a fracture will be the displacement. The direction of a fracture is of great interest, as a knowledge of it will [illegible] in passing [illegible] "cross".— Causes of fracture

These may be divided into two

classes.— Exciting and predis
posing — Any thing that
tends to make the bones liable to be broken is a
disposing cause. Any disease
which deteriorates the general health
such as Syphilis, Rachitis &c are
predisposing causes.

Exciting causes may be divided
into two classes — External vio
lence and muscular violence
Muscular Violence. — In this
variety of fracture the the bones
are usually broken near the
insertion of some large muscle
as in fracture of the humerus
The fracture occurs near the
insertion of the Deltoid muscle.

The [illegible] of this [illegible]
ription of this [illegible]
will be to give the details of a case
which occurred in this City and
was treated at this Infirmary.
He [illegible] was in the Hospital under
treatment for fracture of the Humer-
us, about an inch below the inser-
tion of the Deltoid muscle. He
idly improved under skillful
treatment and in six weeks was
[illegible] well. He
was [illegible] at his speedy
recovery and meeting a friend
he wished to show him the strength
of his recently [illegible]
[illegible]

[illegible] and [illegible] it [illegible]
Immediately [illegible] [illegible] for
alleged [illegible] as if it was [illegible] [illegible]
immediately carried back to the
Infirmary, and there it was dis
covered that he had sustained
a fracture of the Humerus, about
an inch above the former fracture.
The fracture taking place just
under the insertion of the deltoid.
The patella is more frequently
fractured in this way than any
other bone in the body, the femur
ranks next.—

External violence

There are two great causes. direct
and indirect.— Direct

is where a [illegible] is [illegible] at
where it receives an injury, as
from a blow, or from some [illegible]
running [illegible] [illegible].
Indirect is where a [illegible] is
in some distance from where
it receives a blow, or violence.
Take for an example, if a man
falls from a height and strikes
on his head receiving a fracture
of the base of his skull. Or a
man falls, catches on his hands
and receives a concussion of the
brain. The theory in regard
to this "counterstroke" or as the French
term it "Contrecoup", I shall now
endeavor to give. I will

take for an example the following.
A person falls with considerable
violence - catches on his hand. The
force of the fall is carried up his
fore-arm, to the humerus - from
thence it is carried to the glenoid
cavity - here it meets with the
weight of the body. This opposes
checks the momentum. The force
is now thrown down the arm
where meeting with the resistance
it fractures the bone. —
Intra-uterine fracture. This is
where the mother during the last
months of pregnancy receives an
injury, the injury is transmitted
to the foetus, so when it is born

it will have a fine or several bones fractured. — This is considered one of the Surgical Curiosities. —

Pathology

This may be divided into three great classes, "Viz" —

1st Change in the shape of the part Deformity. — 2nd Mobility in its continuity. — 3rd The existence of grating between the broken ends of the bone — Crepitus.

Deformity

This is due to the displacement of the broken ends of the bone, and is perhaps the most important of the three. — Deformity is due to two causes: 1st The violence

which [illegible] — 2nd to the action of muscles. — 1st the violence done to the limb may be of such force as to knock it entirely out of position, as positions would occur from being caught in the wheels of a car. — 2nd action of muscles. In fracture of the femur we have this well shown. In fracture of the neck of this bone we have the leg turned outwards and shortened. — The surgeon can also find deformity by placing his hand on the trochanter, [illegible] he will be able to feel undulations over the seat of fracture.

2nd Mobility. — The occurrence of preternatural mobility, [illegible] appears only [illegible] fractures, and separation of the [illegible] of bone from each other. When you have a fracture near a joint it is pretty hard to discern mobility [illegible] movement which is abnormal with the joint. ——

3rd Crepitus.

This is the sound which results [illegible] the fractured [illegible] against the other. [illegible] crepitus, or [illegible] fracture, you cannot get crepitus. If you get crepitus you may [illegible]

have fracture. But if you can-
not it is not a sure sign that
there is no fracture. — Fibro-
crepitation is liable to deceive
young Surgeons. This is like the
sound which results from rub-
two pieces of linen together.
Pain. This is due to the de-
struction of the soft parts. Pain
often accompanies fracture.

— Diagnosis

Your will begin by getting the
patients confidence
as possible. This you can do
[illegible]
[illegible]
[illegible]

[illegible]

[illegible] will show the patient and expose the injured part with that of the sound. Now commence [illegible] In manipulating, [illegible] care and gentleness. It is not at all necessary to handle the fractured part of the [illegible]

[illegible] history, inspection and [illegible] [illegible] a [illegible] thing this is readily made.

Repair of Fractures.

After fracture there is a quantity of blood extravasated around the bone. This state lasts for five or seven days, and then after this is the process of absorption. After this extravasation there is a state of rest which last for a very [illegible] time, from inflammatory actions will take place. The result of the inflammatory action will be the generation of pus or lymph. This lymph will be thrown out by the periosteum, the medullary canal, and also the tissue around the broken bone. This lymph acts

or splints to the ends of the bone together. When you will see that the ends of the bone will be held together by this great mass of inflammatory exudation. The lymph gradually becomes more and more consolidated, as it becomes firmer the mobility of the fragments lessens. By the third or fourth week the lymph has assumed a sufficient degree of firmness to keep the bone in apposition, although you can easily get motion of the seat of fracture. The lymph gradually undergoes ossification. This commences near or around

the blood vessels which supply the lymph, and make it an organized substance. The bony matter is deposited in a granular manner. It is deposited in sufficient quantity in six or eight weeks to unite the bones but not firmly. The callus (for this is the name of this matter which has undergone ossification) which is soft and spongy at first gradually assimilates to old bone in hardness and strength. By six or eight months ossification is perfect. The last process in the consolidation of the fracture is the formation of new bone cells

the hollow inside. This takes place for some considerable time after the enclosing callus has been formed. —

In some instances the plastic matter does not undergo ossification, but is transformed into ordinary fibrous tissue, as in cicatrices of soft parts, then it forms what is called a false joint.

In the formation of callus there is generally an extra amount thrown out, or formed, but before or by the time, that this intermediate callus (or definite) has been formed, this extra amount has been removed, or has moulded

itself, to the shape, to which it will afterwards remain; the medullary canal having again become free, and the ends of the fractured bone rounded off.
In some cases the medullary canal is not patency for some time continuing to be partially by a septum of callus. —
When the bones are not kept in a state of rest there will be a provisional movement of callus thrown out. This often causes considerable deformity, as in fracture of the Olecranon process.
The deformed mass does not take place the same way in

fracture of the cancellated portion of bone. The cause of this being, that the cancellated portion is so porous that it sucks the amount of collar which is crown out; and thus there is scarcely "none on the external surface. Union of Compound fractures. The difference between this and simple, is the same difference as it is between the healing process of a cicatrix and an open wound. In one there is scarcely any perceptible effect upon the constitution, while in the other the reverse is the case. Local irritation is extremely apt

to prevent [illegible] fractures, such as separation of the elements or necrosis [illegible]. In compound fracture union takes place by the ends of the bone which lie in the granulations and throwing out plastic matter which becomes converted into bone. In many cases the provisional callus is not much; but in most cases there is a large quantity of necessary osseous deposit takes place, particularly if the displacement is great. The union of these fractures resembles that of a wound in the soft parts healing by second

intensions. — This process requires a longer time than that of simple fractures. Consolidation often not being perfectly effected for three or four months, and often requires a longer time than this. — The reunion of fractures takes place more speedily in the young than in the old, and more speedily in the upper extremity than in the lower.

Treatment of Simple fractures

In the treatment of fractures it is not only the duty of the surgeon to give a sound and strong bone, but it is, that the patient should have as little deformity as possible.

And the way to prevent deformity is to contrive some means that will keep the bones in just apposition.—
When a surgeon is called to see a patient, with a severe fracture of the upper or lower limbs he should look at the condition of the bed; this should be firm, flat, & hard, and if possible covered with a horse-hair mattrap.
The patient will have to lay in it some time, and this seems to be the best contrivance to prevent sudden.
If the surgeon has not the appliances he should place the limb on a pillow or something soft, to rest it in an easy position.— After all has been got ready, the surgeon should

commence extension; — This should be done as quickly as possible after the injury; for in a day or two the muscles get in a rigid state, and the broken bones are hard to get in a condition of apposition. In reduction the surgeon should use as little force as possible. In fixing the bones in coaptation the principal obstacle is the contraction of muscles. This must be overcome by extension, by placing the limb in certain positions. — After the bones have been properly set, the surgeon has to use certain contrivances to prevent a displacement. The disl[illegible]

; and these consist of bandages, splints, and special apparatus of various kinds. In applying these care should be taken not to exert too much force or pressure on the limb. - Pads and compresses of all kinds should be avoided. When there is much tendency of the return of the displacement, it has been recommended to divide the tendons of the muscles particularly those attached to the lower end of the fragment.

Bandages. These should be not three inches in width, and of sufficient length and should be made of the [illegible] [illegible]. In applying these care should be taken not

the turns not to have it to pressure unevenly on the part. Bandages should not be applied under splints, particularly at the flexure of the joint. No bandages should be applied in the time of the act of operation. Bandages may be applied before the function [illegible]

Splints. These are made of various materials, such as tin, wood, leather &c. The surgeon should not compress [illegible] splints. Splints are made to [illegible] limb in [illegible], so when they are applied they will keep the parts [illegible] — To prevent shortening, and this [illegible]

particularly to the lower extremity there has been many splints invented, the best and most useful is the following (that is I think it is the best). We will take as example fracture of the femur.

After the bones have been put in apposition, two adhesive strips are applied to the lower fragment running down to the foot, these are brought together at the foot, and a piece of thin board is placed between them, to this is attached a piece cord, now to the foot of the bed is attached a piece of board running up about one foot along the bed on the top of this board is attached

a roller. To the cord which is attached to the board at the bottom of the foot-piece are some weights tied. This cord is now placed in the roller at the foot of the bed. Then this adhesive plaster you must place the splint, you can see that the adhesive plaster does not at all interfere with this arrangement; And you have continual traction exerted. And above all you perceive shortening to [illegible] have been [illegible] in [illegible] on patients in the Hospital under the treatment of Prof. Tessier. Plaster-Bandages were used in [illegible]

fractures of the tibia and fibula. These splints will allow the patient to hobble around on crutches immediately after they are put on. The starch bandage acts in the same way.

Treatment of Compound fractures.

In this variety you have a wound to treat in conjunction with a broken bone. And in applying the splint you will have to be careful so that you will be able to treat the wound as well as the broken bone. In this variety of fracture I think Smith's anterior splint is the best, for with this you are able to treat the wound

without fating the patient to any discomfort. The limb is swung in the air in an easy position for the surgeon; and the bars which crop the splint will give ample room for treatment. This variety of fracture is very depressing to the constitution, and you will have to give the patient tonics, stimulants, and above all good nutritious food. Use antiseptics upon the wound if there is an ill smelling odor. Use cold lotions at first to keep down inflammation, and continue the use of antiphlogistics, internally. If there is much pain give anodynes.

In the treatment of complicated
fractures with dislocation
I will not have much to
say, for in the treatment of the
other varieties of fracture
have made use of the remedies
which are brought to bear in
treatment of these varieties
of fracture. Complicated
fractures, I will defend
upon the complication, if it
is complicated with a dislocation
reduce the dislocation & treat as
a simple fracture. If it is com-
plicated with an injury of an art.
if you cannot do so, do
by [illegible] medical legal

Impacted fracture. There may occur an fracture of the femur. This variety had better be left alone unless it is in the leg bone. If [illegible] the [illegible] and treat as a simple fracture. Comminuted. In this form bring the splintered ends together if they are not too much [illegible] per-cussion, as well as you can. Of the [illegible] the end-bearing through the skin there is apt to be a great deal of sloughing. Use stimulant [illegible] good results [illegible] of the other fragments away. [illegible] will be [illegible] to [illegible] in these [illegible]